



**2021**  
**Arkansas Youth Risk Behavior Survey**  
**Coordinated by**



**SCHOOL HEALTH SERVICES**  
Creating and Sustaining a Healthy School Culture

Arkansas Division of Elementary and Secondary Education  
School Health Service

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## **Acknowledgements**

The 2021 Youth Risk Behavior Survey (YBRS) report is a continuation of the surveillance and reporting system for adolescent risk behaviors conducted by the Division of Elementary and Secondary Education (DESE), School Health Services Office. The YBRS was first used in Arkansas in 1995. The Division of Elementary and Secondary Education acknowledge the participation, support, and support of those who made the 2021 Arkansas Youth Risk Behavior Survey possible. Sincere appreciation is expressed to:

- The U.S. Centers for Disease Control and Prevention, WESTAT Survey Technical Assistance Project.
- The district superintendents, school principals, counselors, and teachers who cooperated with the survey process.
- The parents who approved their children's participation in the survey.
- The Arkansas students who completed the survey.

## **Basic Information**

### **What is the Youth Risk Behavior Survey?**

The 2021 Arkansas Youth Risk Behavior Survey (YRBS) was conducted as a part of a national effort by the U.S. Centers for Disease Control and Prevention to monitor the health risk behaviors of the nation's high public school students.

The YRBS is a self-administered, anonymous, school-based survey that monitors the prevalence of risk behaviors among public high school students in grades 9 through 12. The data will help Arkansas identify public school students' current health and safety habits. It will also help address current issues and develop programs and policies to support the health and safety of Arkansas' student population.

### **Why did Arkansas Conduct the Youth Risk Behavior Survey?**

The Youth Risk Behavior Survey will help Arkansas identify public school students' current health and safety habits so that improvements can be made, where needed. Healthy lifestyles for Arkansas students means longer, more productive lives for the state's young people, as well as improved learning in the classroom. People develop behavior patterns in their teen years, which can eventually strengthen or threaten their quality and length of life. Currently, many adolescents in the United States use tobacco, consume too much sugar, too few fruits and vegetables, and fail to exercise regularly. Programs such as regular physical education classes, comprehensive health education classes, that include nutrition courses, substance abuse education, and safety training can be used to equip students with disease-prevention skills and injury-prevention information.

Arkansas' state results can be compared with national findings, as well as with other participating states.

The 2021 YRBS also provides Arkansas with measures for evaluating future trends in health habits of youth. Survey results can serve as a valuable tool, particularly for legislators, policy makers, grant writers, school administrators and teachers as they make decisions about disease-prevention and health-promotion policies, services, programs and educational activities. Parents and students can use these results to evaluate potential changes toward better health. Specifically, the YRBS findings form a valuable base upon which Arkansas can strengthen its ability to:

- establish disease prevention and health promotion policies;
- plan and implement programs and services;
- secure funding for programs;
- allocate resources toward targeted needs and priorities;
- conduct future research and note progress or deficiencies; and
- enact laws to prevent injuries and unnecessary deaths.

### **How was the Youth Risk Behavior Survey Conducted?**

During the spring, 2021, ninth through twelfth grade students enrolled in 35 scientifically sampled public high schools completed the YRBS. The classes that participated were randomly selected from master schedules submitted by these sampled schools. Although schools for incarcerated youth were not included in this initial survey, all the other public high schools in the Division of Elementary and Secondary Education's system were eligible to be selected.

### **Who Participated in the Youth Risk Behavior Survey?**

Virtually every Arkansas public school student enrolled in grades nine through twelve – and every class at those grade levels – had an equal chance of being selected to complete a YRBS questionnaire. Research guidelines and modern computer technology administered by the U.S. Centers for Disease Control (CDC) and Prevention were followed to make all selections of sample schools. Following strict research procedures also ensure that:

- selected schools, their administrator, parents, and students were informed and voluntarily agreed to participate and
- student identity remained anonymous in all reports.

During the spring of 2021, 2,762 students in 35 public high schools in Arkansas were selected to complete the Youth Risk Behavior Survey. The school response rate was 83%, the student response rate was 73%, with an overall response rate of 61%. The results are representative of all students in grades nine through twelve. Researchers call such results or data “weighted,” which simply means each participant’s answer represented that individual plus some others who were similar to that individual. Overall, Arkansas’ 2021 YRBS results are representative of what Arkansas’ ninth through twelfth public high school student population would have reported.



## About This Report

This report entitled “Arkansas Youth Risk Behavior Survey 2021” aggregates Arkansas’ public high school student reports about alcohol, tobacco, and other health risk behaviors. Arkansas’ survey of public schools provides a “snapshot” of Arkansas high school students’ behaviors. The survey contains questions related to:

- behaviors that result in unintentional injuries and violence;
- tobacco use;
- alcohol and other drug use;
- sexual behaviors that result in HIV infection, other sexually transmitted diseases (STDs), and unintended adolescent pregnancies;
- dietary behaviors; and
- physical activity.

This report summarizes Arkansas’ findings on the priority health risks that result in the most significant causes of death and disability of youth in Arkansas. Written for concerned educators, policy makers, parents and youth, this YRBS report provides a brief overview of:

- the survey’s process and procedures;
- survey questions;
- aggregated student responses;
- demographic breakdown of student responders; and
- major summary findings and conclusions.

Additional information about the national, state and local YRBS is available at:

[www.cdc.gov/healthyyouth/data/yrbs/index.htm](http://www.cdc.gov/healthyyouth/data/yrbs/index.htm)



## **How Results Can Be Interpreted**

Arkansas' 2021 Youth Risk Behavior Survey is a “snapshot in time” showing those drug-related and disease-producing behaviors reported by high school students during spring, 2021.

Answers in this survey were only as accurate as the student's self-reporting. Each student interpreted the terms in each question according to his or her own definitions. For instance, do “French fries” qualify as a vegetable? Is a pocketknife a “weapon”? What area does “on school property” include?

In some cases, the findings could under-or-over-report. Some students chose not to answer certain questions, meaning that all students surveyed were not represented in every aggregated response result.

However, the percentage of participating students was sufficiently high so that survey findings could be identified as accurate, correct, or “valid at the 95% confidence level.” That is, if the survey was to be repeated 100 times, 95 times out of 100, similar results would be found. For each of the 99 questions, different ranges or possible margins of error (confidence intervals) were calculated.

Where rounding occurs, percentages are reported in this survey for behavior-related questions and were rounded according to Centers for Disease Control and Prevention (CDC) guidelines. Odd half number (e.g., 7.5% or 75.5% ) were rounded up (e.g., to 8% or 76% respectively) and even half numbers (e.g., 8.5% or 22.5%) were rounded down (e.g., to 8% or 22% respectively). Based on this rounding system, total percentages may be more or less than 100%.

Where graphs are missing bars, there were not enough responding students in a particular demographic to draw generalized data.

## **Reading The Graphs In This Report**

Each question from the 2021 Youth Risk Behavior Survey has three graphs associated with it, describing the associated risk behavior in each student classification.

### **Demographic Breakdown**

This graph contains a breakdown of nine demographic classifications of students.

The “All Respondents” bar refers to the percentage of all respondents who answered affirmatively to engaging in the risk behavior. For example, on page 31, it can be seen that 85.9% of all respondents replied that they did not wear a helmet on an ATV, this is reflected in the “Total” bar.

The nine classifications will not add up to the total, as each bar references only the students in that category who replied that they engaged in that behavior. In the same example on page 31, it can be seen that 86.8% of males who responded did not wear a helmet while riding ATVs, and similarly 88.8% of females who responded did not wear a helmet. These do not add up to the total, or even 100% because they only refer to students in that category. In the event that a category does not have a bar associated with it, there were not enough respondents who answered the question to obtain weighted data.

### **Trend Data by Year**

This graph shows the total percentage of survey respondents who engaged in a risk behavior over time. Some questions have trend data that goes back to 1995, while other questions have been added later. If the question was added in 2021, then no trend graph will be included. As with the demographic graphs, these categories are independent of one another, and they will not add up to 100%.

### **Sexual Identity**

This graph explores risk behavior rates by sexual identity. As with demographic graphs, each category is independent of the others.

Interested individuals may request additional information. Researchers and professionals wanting to build upon Arkansas' 2021 YRBS data may request detailed frequency tables and question rationale from:

Division of Elementary and Secondary Education, School Health Services

Four Capitol Mall, Mail Slot #14

Little Rock, AR 72201

Ph:(501) 683-3604

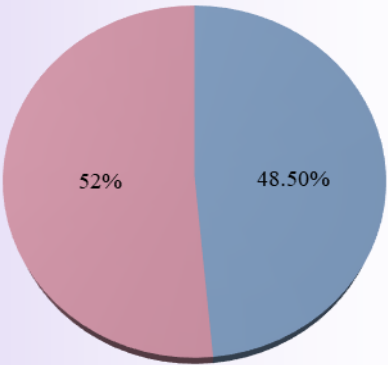
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[mina.ilhuicamina@ade.arkansas.gov](mailto:mina.ilhuicamina@ade.arkansas.gov)

<http://www.arkansased.gov/divisions/learning-services/school-health-services/youth-risk-behavior-survey-yrbs>

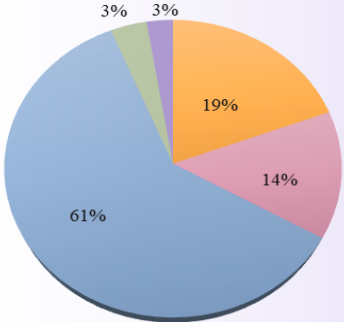
# Survey Participant Demographics

Gender Demographics



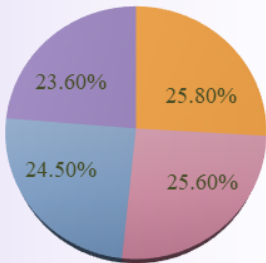
Male Female

Racial Demographics



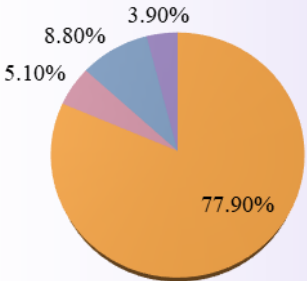
Black Hispanic/Latino White All Other Races Multiple Races

Grade Level of Survey Participants



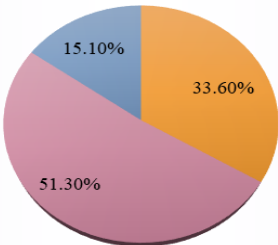
9th 10th 11th 12th

Sexual Identity Demographics



Heterosexual Bisexual Gay or Lesbian Other / Questioning

Age Demographics

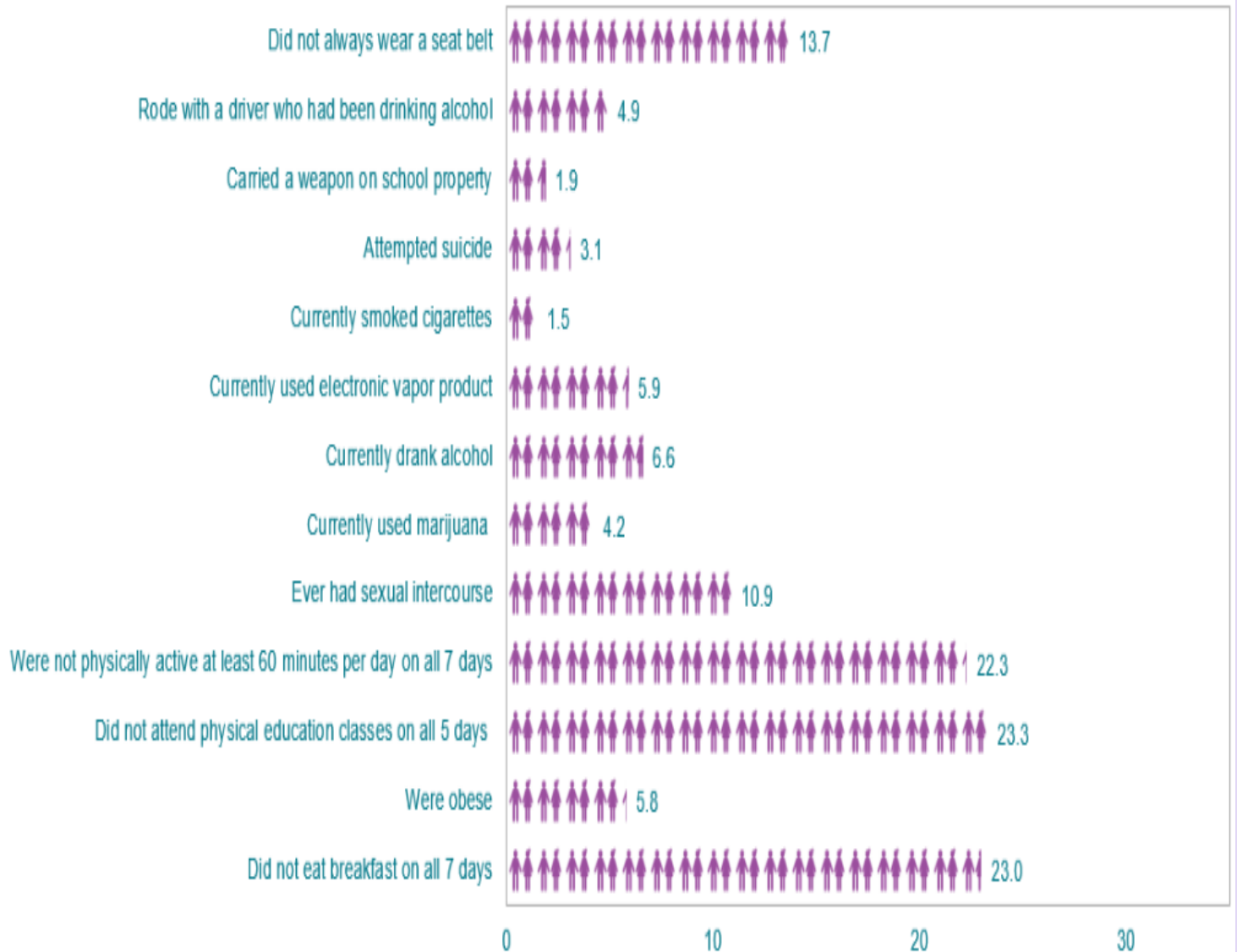


15 or Younger 16 or 17 18 or Older

## Classroom Summary Graph

The following infographic represents the number of students in a typical class of 30 who:

Number of students in a class of 30 who:



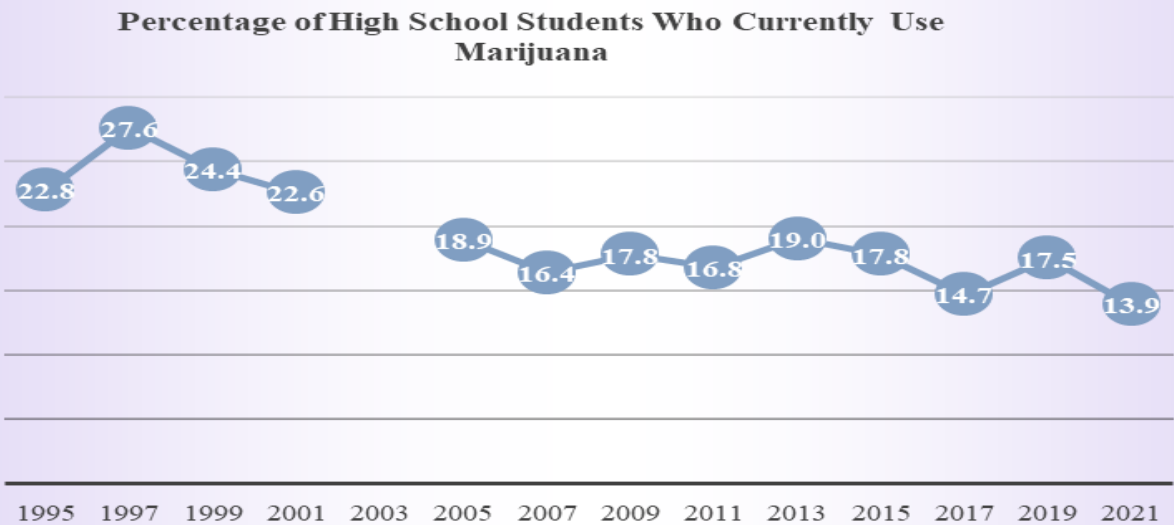
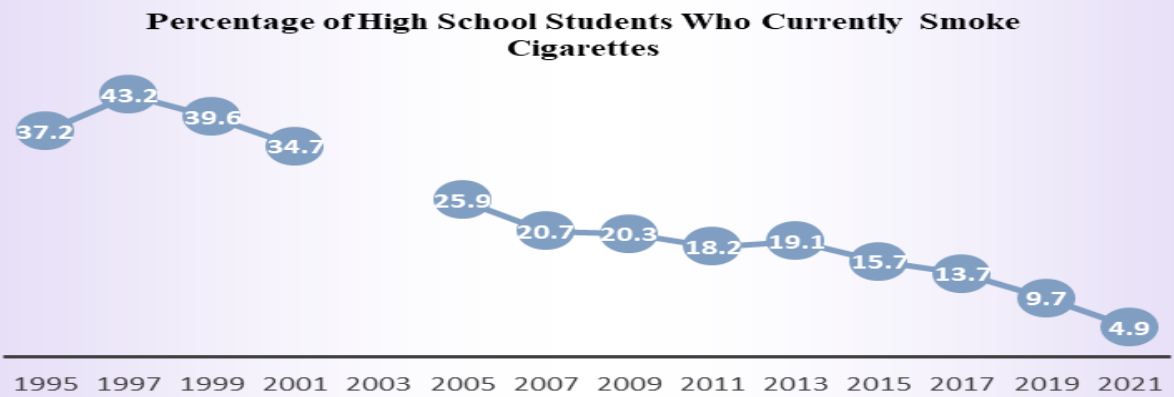
## **Key Findings**

### **Key Findings: Drug use**

Following national trends, drug use in Arkansas has shown a steady downward trend since the 90s. Except for vaping, most of the students' report using drastically fewer drugs than they did a few decades ago. The number of current cigarette smokers in high schools has decreased from 37% in 1995 to 5% in 2021. Similarly, those reporting drinking alcohol has decreased from 52% to 22%, and those using marijuana has remained roughly constant, but with a slight decrease over time, with 23% in 1995 and 14% in 2021.

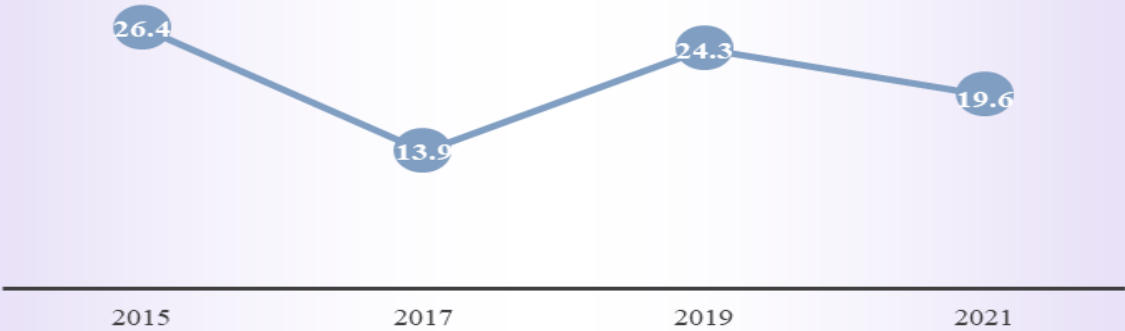
In contrast, 19.6%, of high school students report that they currently vape. The ready availability of vaping products, and the ease with which they can be disguised as USB drives, pens, and even watches, makes them an appealing drug of choice for at-risk youth.

Key Trends Related to Drug Use





**Percentage of High School Students Who Currently Use an Electronic Vapor Product**



**Percentage of High School Students Who Frequently Use Electronic Vapor Products**

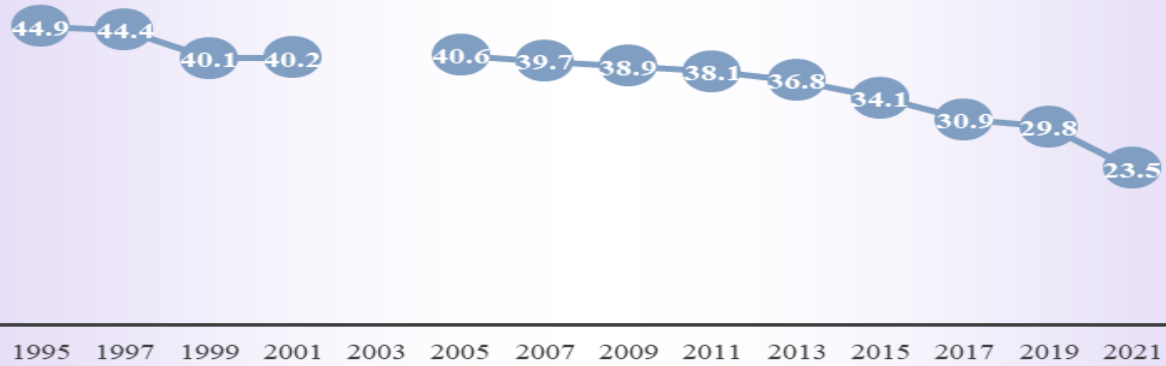


**Key Findings: Sexual Behaviors**

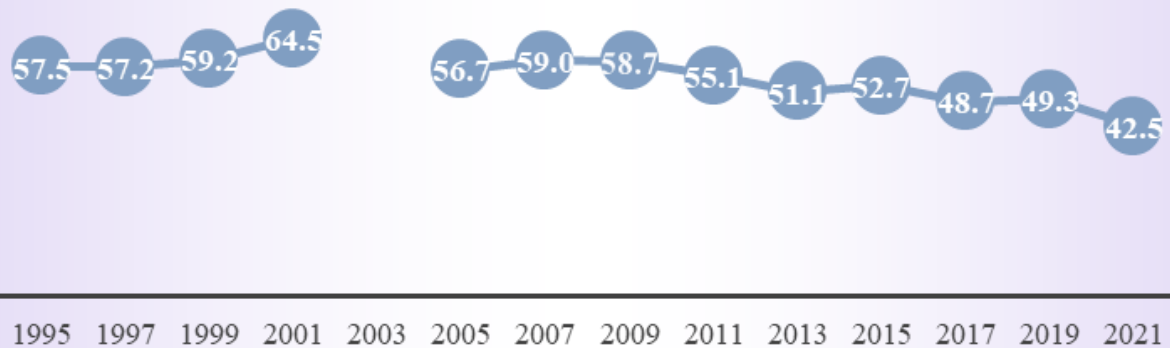
Fewer students are reporting that they are currently sexually active, at 24% in 2021 -- this is down from 45% in 1995. However, those engaging in sex are doing so in a high-risk manner. 43% of sexually active youth reported using a condom during their last sexual intercourse, and 15% did not use anything at all to prevent pregnancy.

## Key Findings: Sexual Behaviors

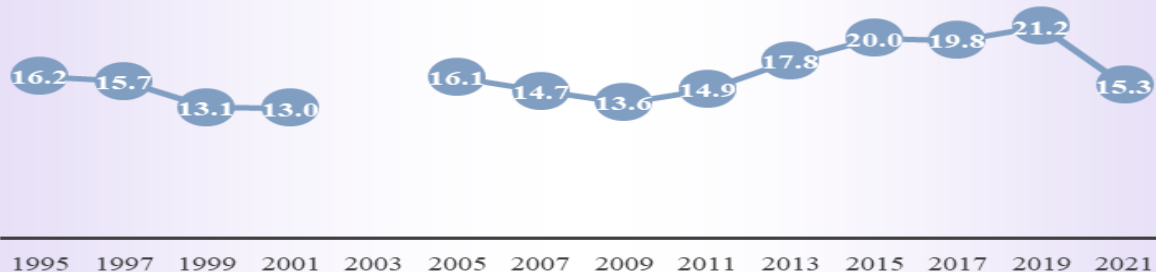
**Percentage of High School Students Who Are Currently Sexually Active**



**Percentage of High School Students Who Used a Condom During Last Sexual Intercourse**



**Percentage of Students Who Did Not Use Any Method to Prevent Pregnancy**



### **Key Findings: Depression**

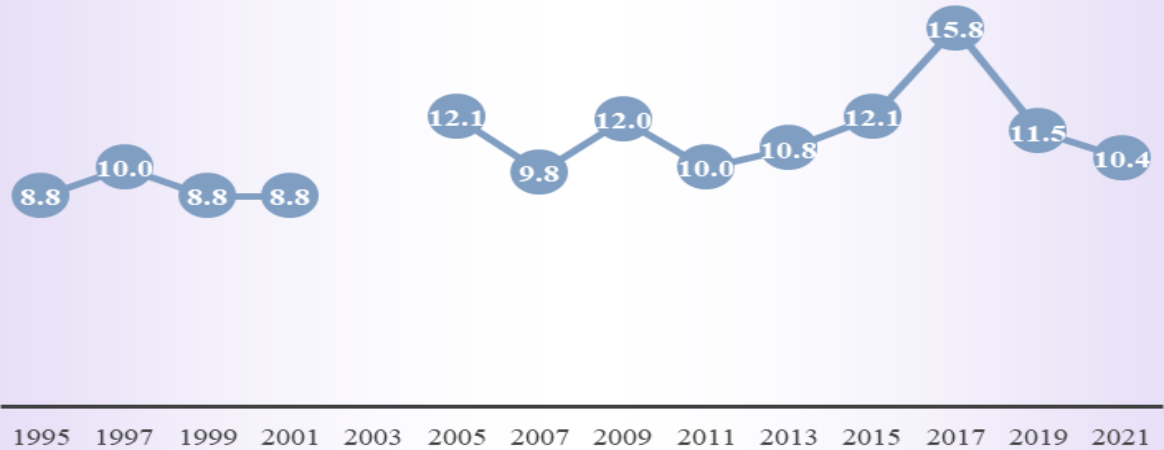
Despite improvements in drug use and some sexual behaviors, there are several trends that prove to be increasingly problematic in Arkansas. Rates of hopelessness among Arkansas youth are high. The 2021 report shows that 43% of students stated they felt so sad or hopeless, that they stopped some of their usual activities for over two weeks. Fortunately, suicide attempts are down from 2017's 16%, to 10% in 2021. These proxy questions for depression may point to deeper problems related to student mental wellbeing. There is evidence that depressive behaviors are influenced by varied factors such as feelings of belonging, sleep, exercise, and diet.

Key Findings: Depression

Percentage of High School Students Who Felt Sad or Hopeless



Percentage of High School Students Who Attempted Suicide



Percentage of High School Students Who Seriously Considered Attempting Suicide



### **Key Findings: Diet, Physical Activity, and Sleep**

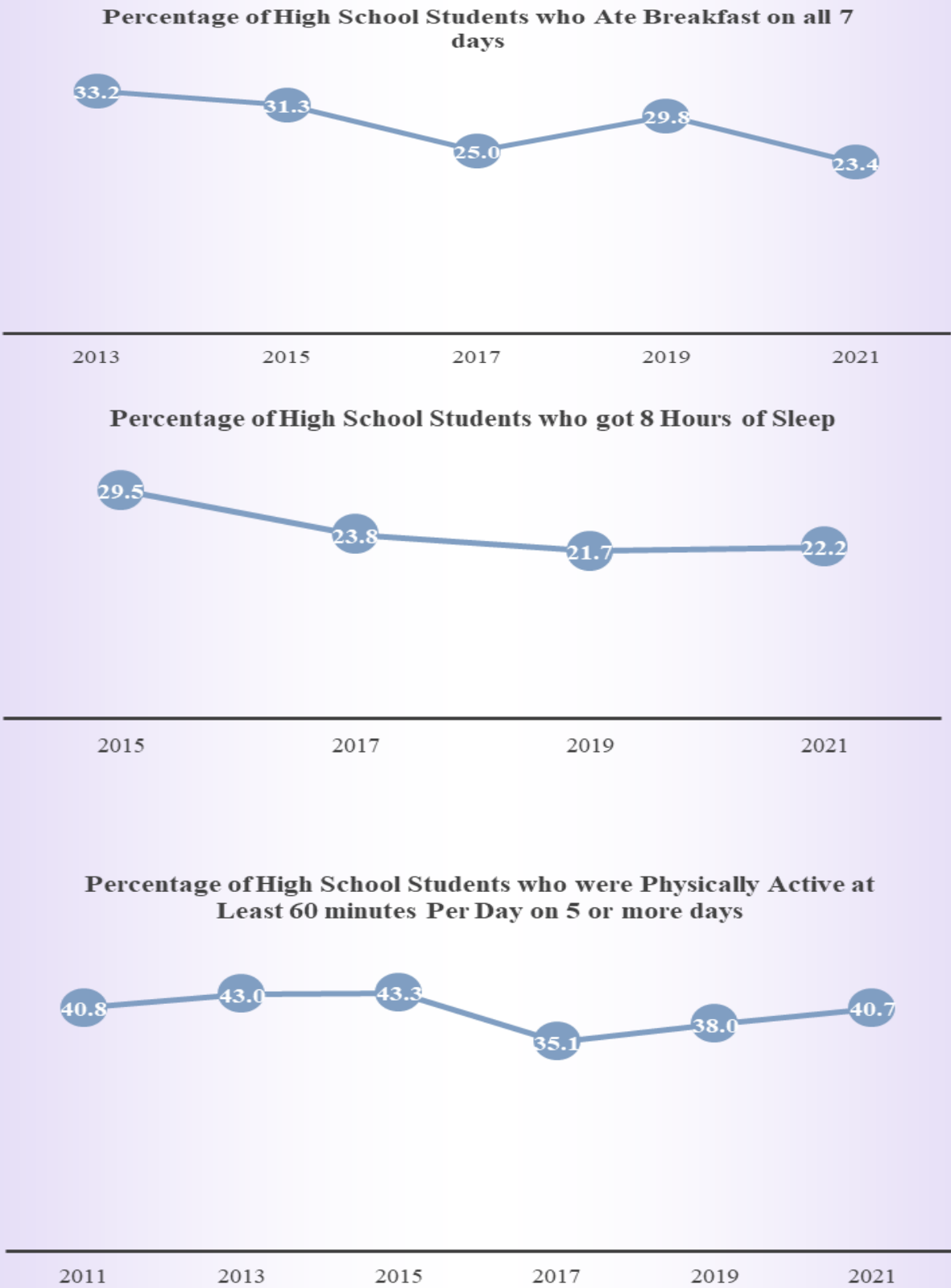
Fewer students report healthy behaviors around diet, physical activity and sleep:

- 24% of students reported eating breakfast all 7 days in the week before the survey.
- 22% of students reported getting 8 or more hours of sleep on an average school night.
- 41% of students reported getting physical activity for 60 minutes on 5 days in the past week.

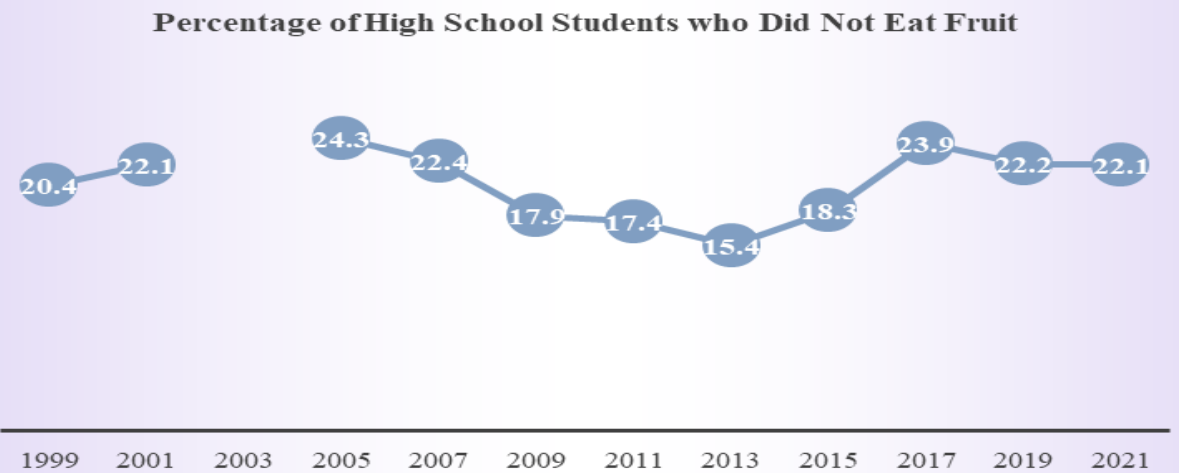
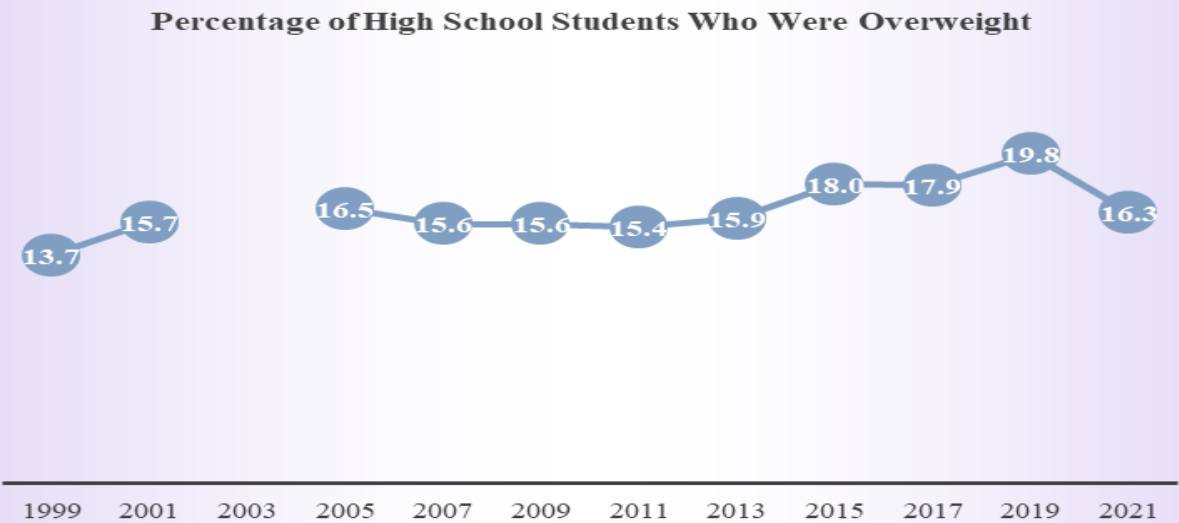
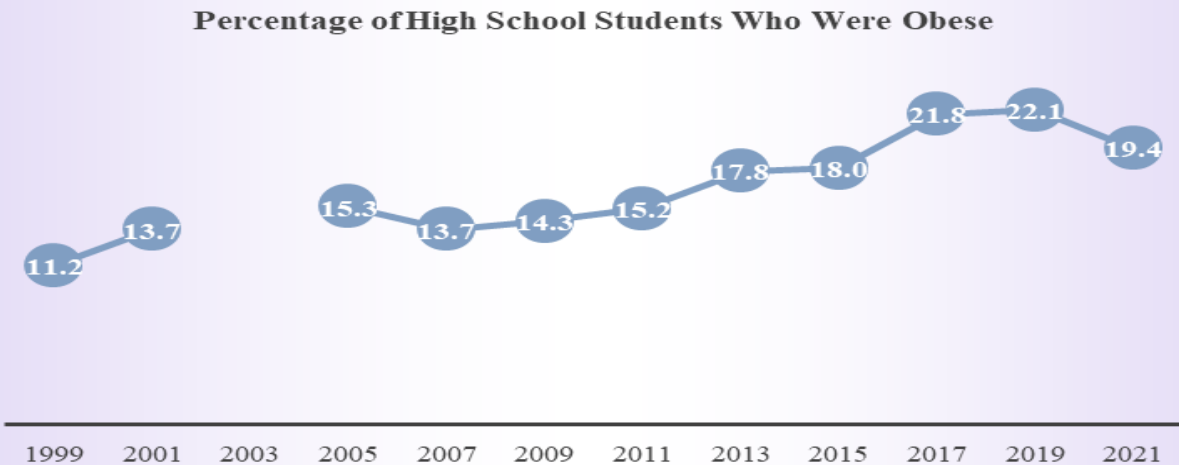
The neglect of any one of these basic health needs has the potential to cause long term health consequences for Arkansas' youth.

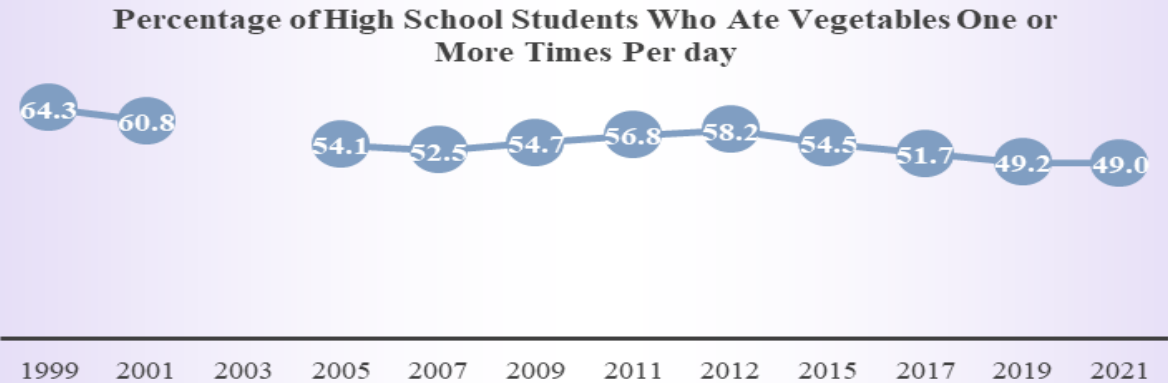
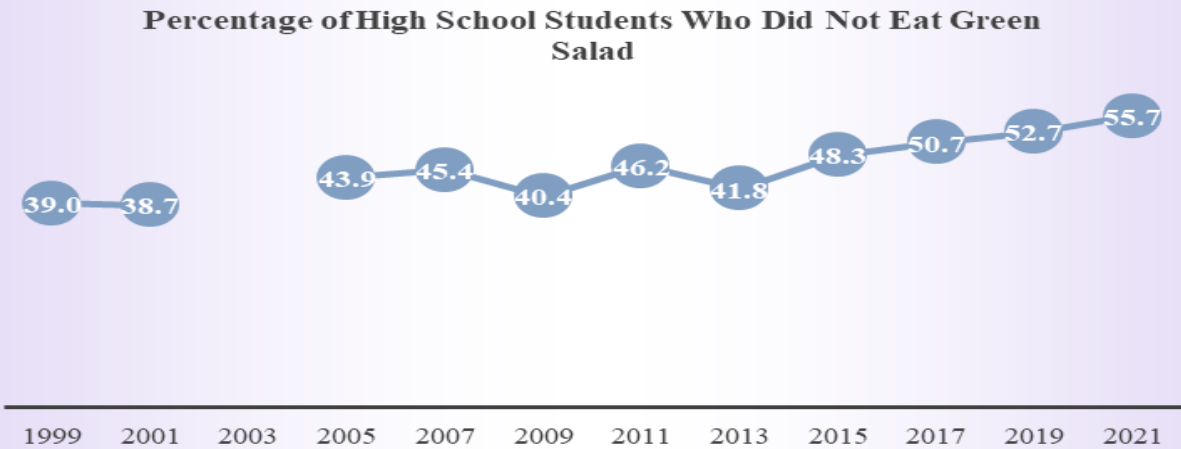
Obesity in Arkansas continues to increase. In 2021 19% of students reported being obese, with another 16% reporting being overweight. In 2021, 22% of students reported not eating fruit, while 56% reported not eating green salad. Less than half reported eating vegetables even once a day.

Key Trends: Diet and Physical Activity









## **Unintentional Injuries and Violence: Vehicle Safety**

### **QUESTIONS:**

8. How often do you wear a seat belt when riding in a car driven by someone else?

### **RATIONALE:**

This question measures the frequency with which seat belts are worn when riding in a car driven by someone else. Motor vehicle crashes are the second leading cause of death among adolescents aged 13–19 years in the United States.(1) In 2018, 2,486 adolescents (aged 13–19 years) were killed and approximately 285,000 were treated in emergency departments for motor vehicle crash-related injuries.(1) When used correctly, seat belts reduce the risk of death and serious injury in crashes for passenger car occupants by about half.(2,3) However, in 2018, among all deaths due to vehicle injuries 13- to 19-year-olds, seat belt use among passengers (36%) was considerably lower than among drivers (48%). (4) In 2019, approximately 43% of high school students nationwide did not always wear a seat belt when riding in a car driven by someone else. (5)

### **QUESTIONS:**

9. During the past 30 days, how many times did you ride in a car driven by someone who had been drinking alcohol?

10. During the Past 30 days, how many times did you drive a car when you had been drinking alcohol?

### **RATIONALE:**

These questions measure the frequency with which high school students drove a motor vehicle after drinking alcohol or rode as a passenger in a motor vehicle operated by someone who had been drinking alcohol. In 2017, 19% of 15- to 20-year-old drivers who were involved in fatal motor vehicle crashes had been drinking alcohol. (6) Among those young drivers who were involved in fatal motor vehicle crashes and had been drinking alcohol, 81% had a blood alcohol concentration (BAC) equal to or above the legal threshold for adults (which is 0.08% in all states but Utah). (6) In 2018, approximately one-fifth of drivers 16–19 years of age who were killed in motor vehicle crashes had BACs at or above 0.08%.(7) Even at BACs of 0.050%–0.079%, drivers 16–20 years of age are about 6 times as likely to be involved in a fatal crash as their sober counterparts.(8) In 2019, among the approximately 60% of U.S. high school students who had driven a car or other vehicle during the 30 days before the survey, 5% drove one or more times when they had been drinking alcohol. (9) During 2013–2019, among U.S. high school students who had driven a car or other vehicle during the 30 days before the survey, the prevalence of students who had driven one or more times when they had been drinking alcohol decreased from 10% to 5%.(10)

Riding with a driver of any age who has been drinking alcohol is dangerous. Riding with a drunk driver is also associated with adolescent drinking and driving.(9,11) In addition, longitudinal research indicates that adolescents who ride with impaired drivers at a young age are more

likely to drive while impaired themselves as they get older and start driving.(9,12) In 2019, among high school students nationwide, 17 percent had ridden in a car or other vehicle driven by someone who had been drinking alcohol at least once during the 30 days before the survey. (9) Among students nationwide, the prevalence of riding with a driver who had been drinking alcohol decreased during 1991–2009 (40%–28%) and then further decreased during 2009–2019 (28%-17%).(10)

**QUESTION:**

11. During the past 30 days, how many times did you text or e-mail while driving a car or other vehicle?

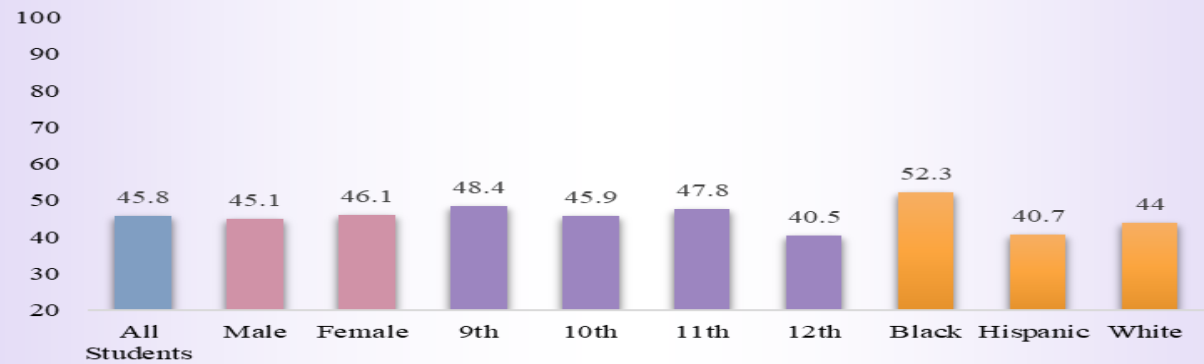
**RATIONALE:**

These questions measure the frequency with which students engage in texting or e-mailing while driving a motor vehicle. Motor vehicle crashes are the second leading cause of death among U.S. adolescents aged 13–19.(13) Drivers aged 15–19 are specifically affected fatal crashes and distraction-affected fatal crashes that involve cell phone use.(14) In 2018, 8% of all drivers aged 15–19 involved in fatal crashes were reported as distracted at the time of the crash, and 17% of these distracted teens were distracted by the use of cell phones.(14) The performance of distracting secondary tasks while driving, such as texting while driving, significantly increases risk for a crash or near-crash among novice, inexperienced drivers.(15,16) Texting while driving is an especially risky type of distracted driving, as it involves three types of driver distraction: visual, physical/manual, and cognitive.(17) Teen drivers are more vulnerable to the effects of distraction(15,18,19) and are less able to disengage from distracting behaviors as road hazards emerge than adults.(20) In 2019, among the approximately 60% of high school students nationwide who had driven a car or other vehicle during the 30 days before the survey, the prevalence of texting while driving one or more times in the 30 days before the survey was 39%.(21) Texting while driving among high school students who had driven a car or other vehicle during the 30 days before the survey has not changed significantly since this question was first included in the Youth Risk Behavior Surveillance System questionnaires in 2013.(22)

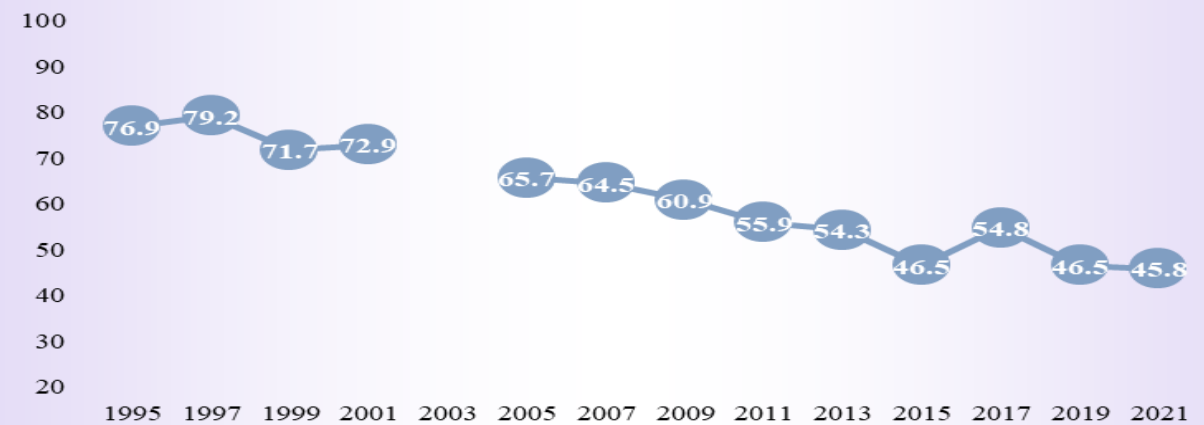
Seat Belt Use- Rider

Statewide 45.8 percent of Arkansas students did not always wear a seat belt when riding in a car driven by someone else.

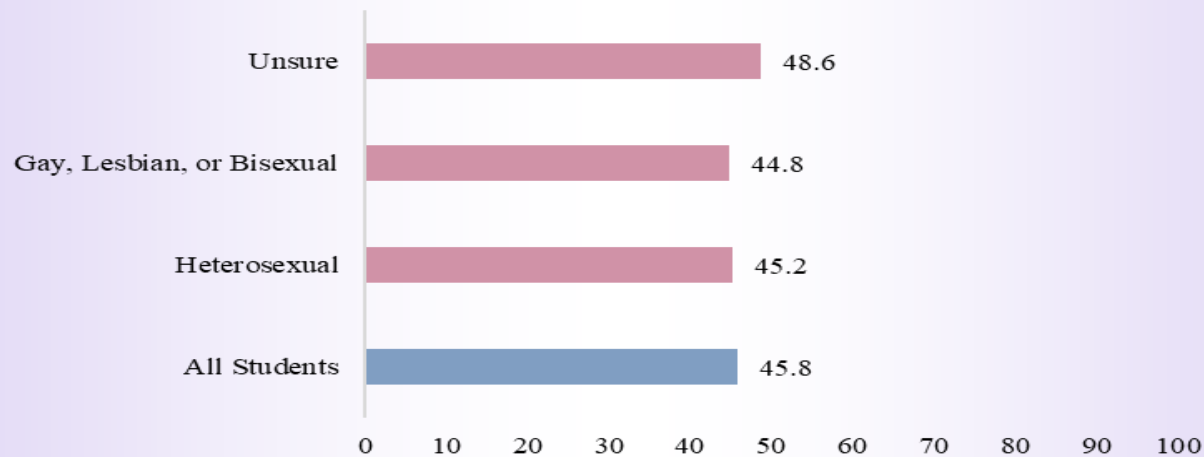
Demographic Breakdown



Trend Data by Year



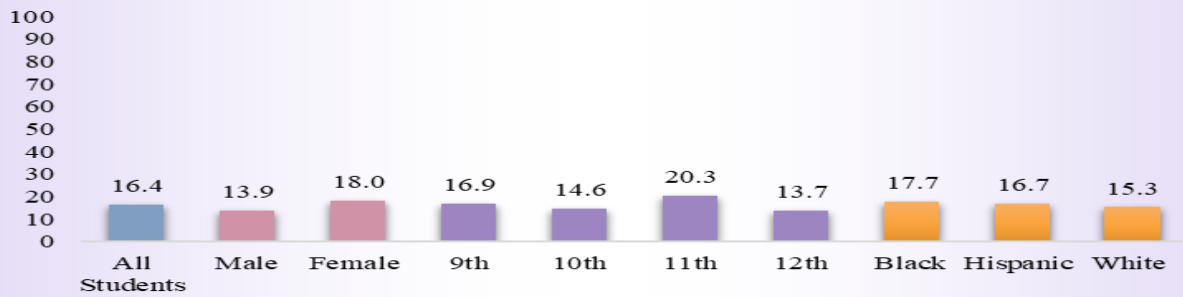
Sexual Identity



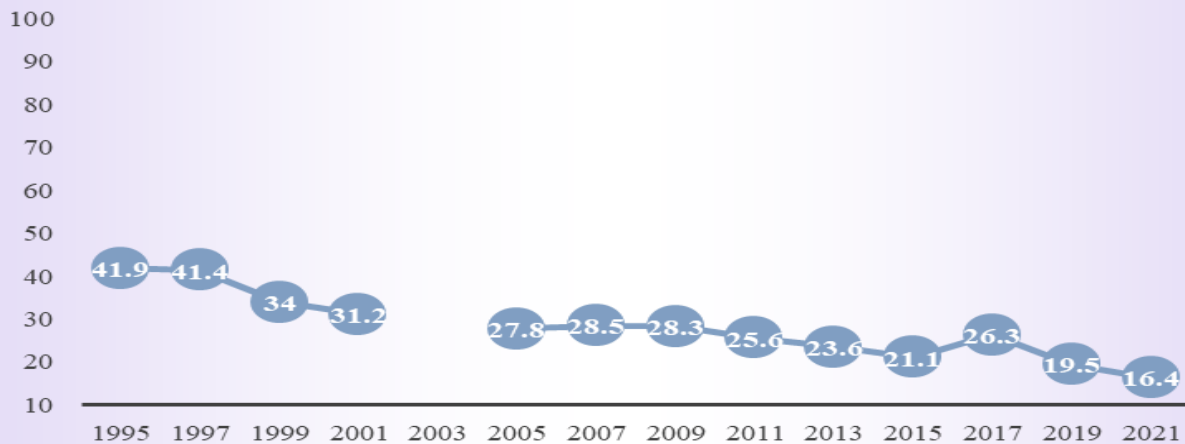
## Rode With A Driver Who Had Been Drinking Alcohol

During the past 30 days, 16.4 percent of students rode one or more times in a car or vehicle driven by someone who had been drinking alcohol.

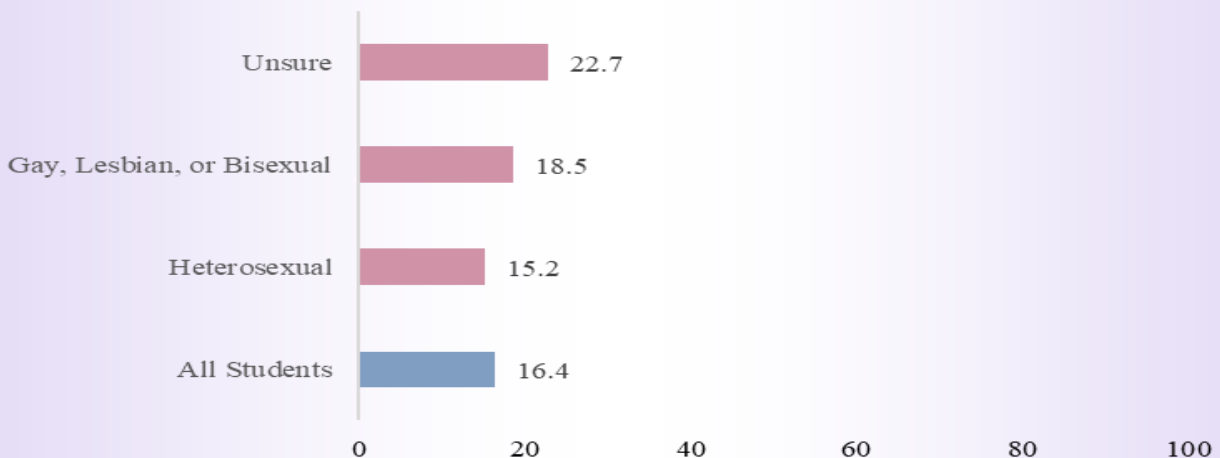
### Demographic Breakdown



### Trend Data by Year



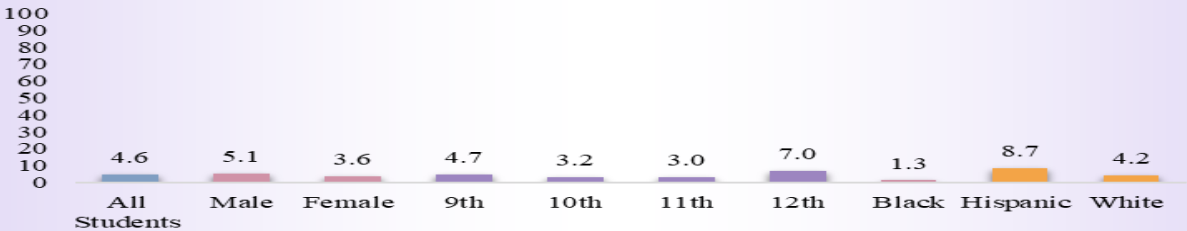
### Sexual Identity



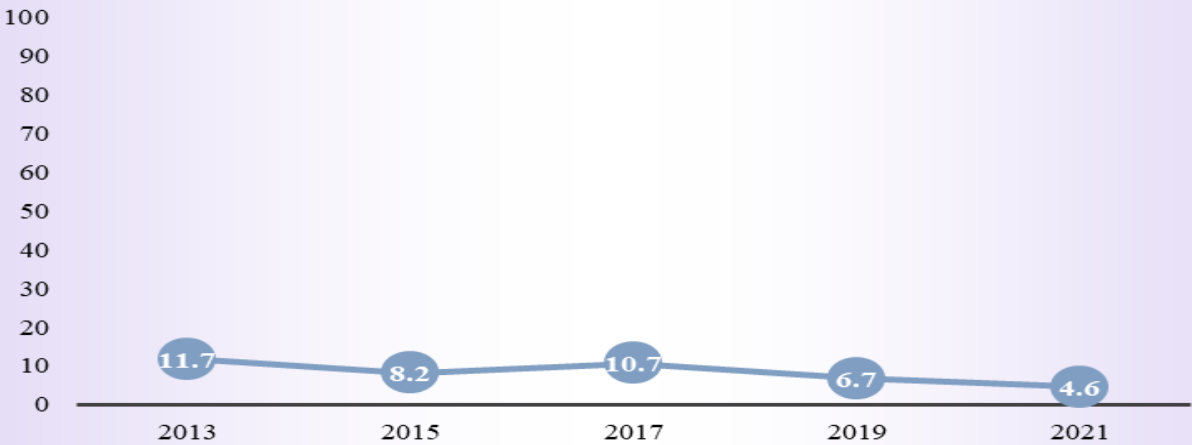
Drove When Drinking Alcohol

Among Students who drove a car or other vehicle during the past 30 days, 4.6 percent drove when they had been drinking alcohol during the past 30 days.

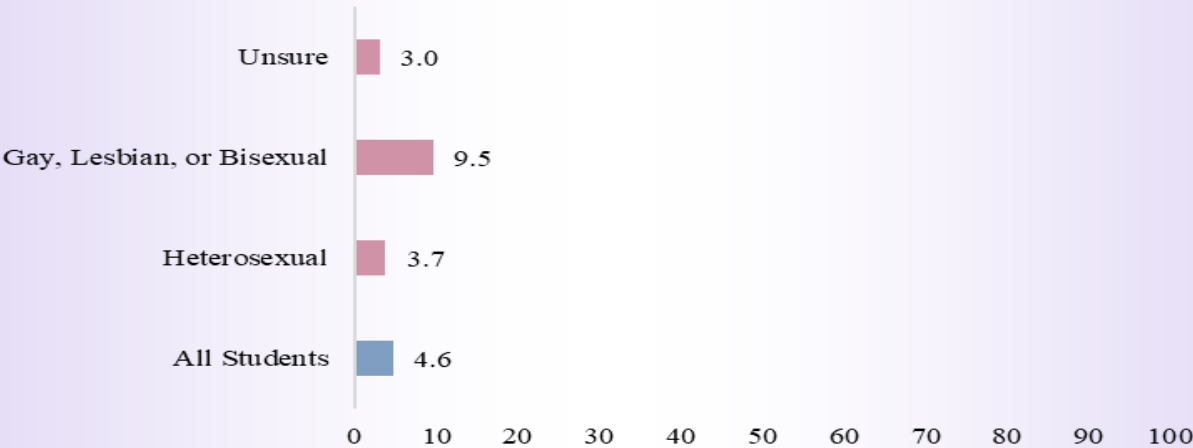
Demographic Breakdown



Trend Data by Year



Sexual Identity

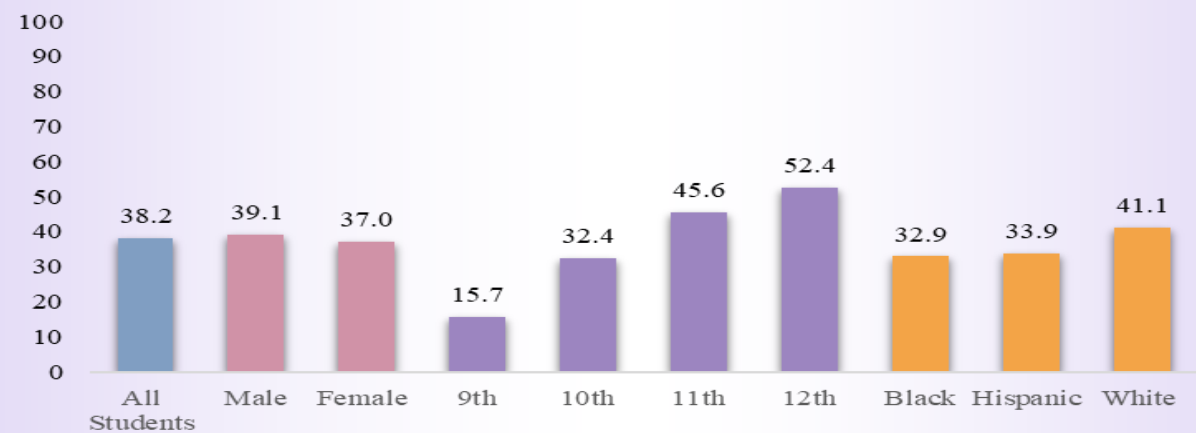




Texting and Driving

Among Arkansas students who drove a car or other vehicle during the past 30 days, 38.2 per-cent texted or emailed while driving.

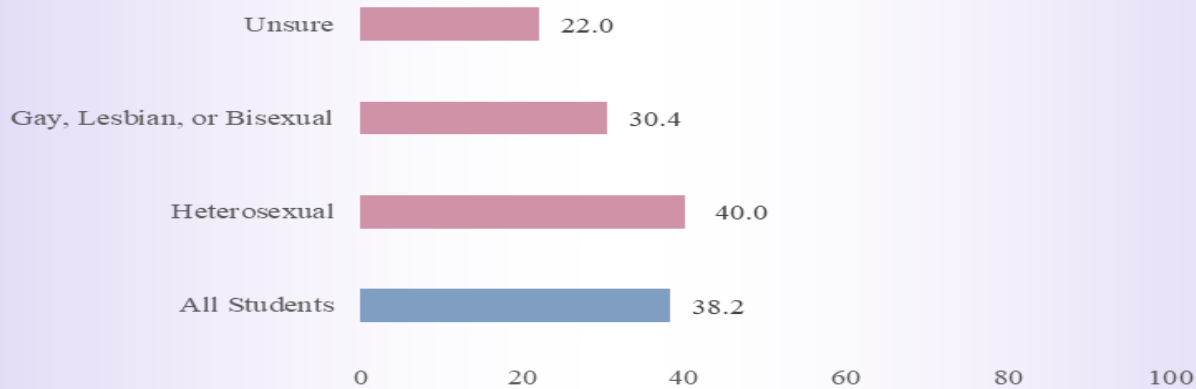
Demographic Breakdown



Trend Data by Year

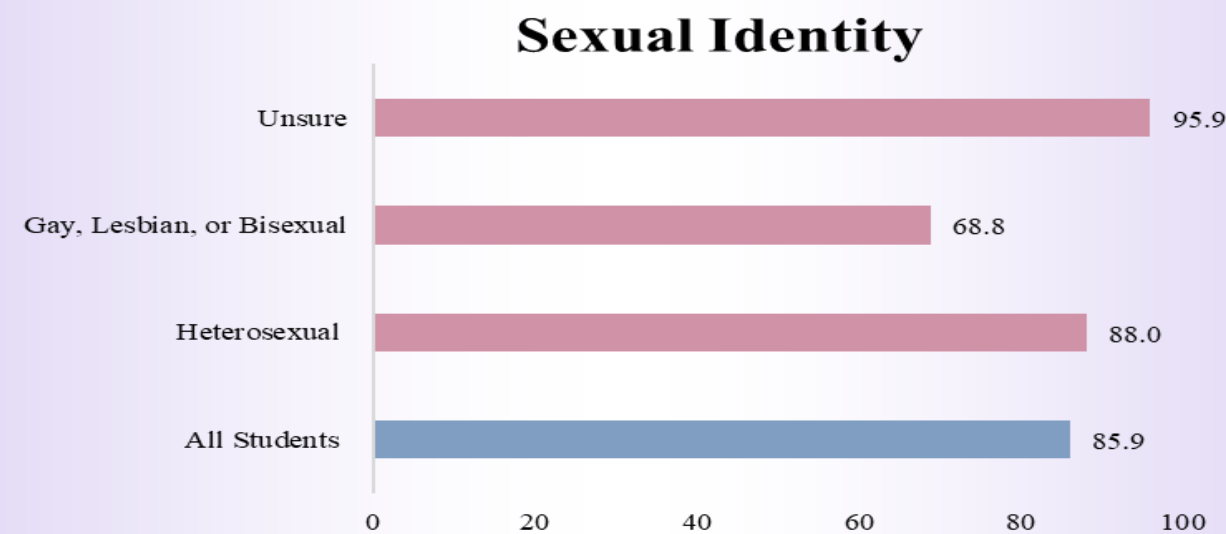
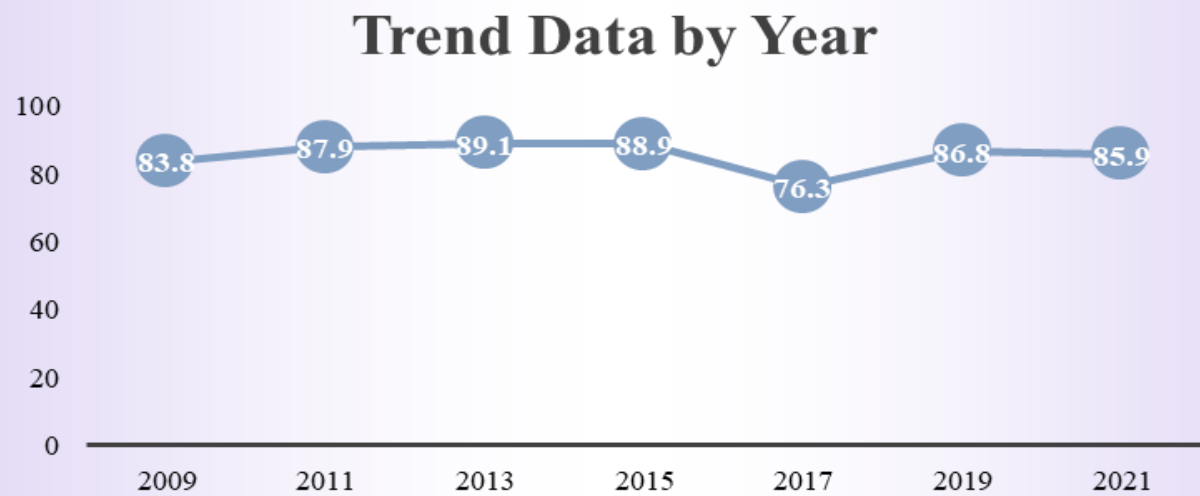
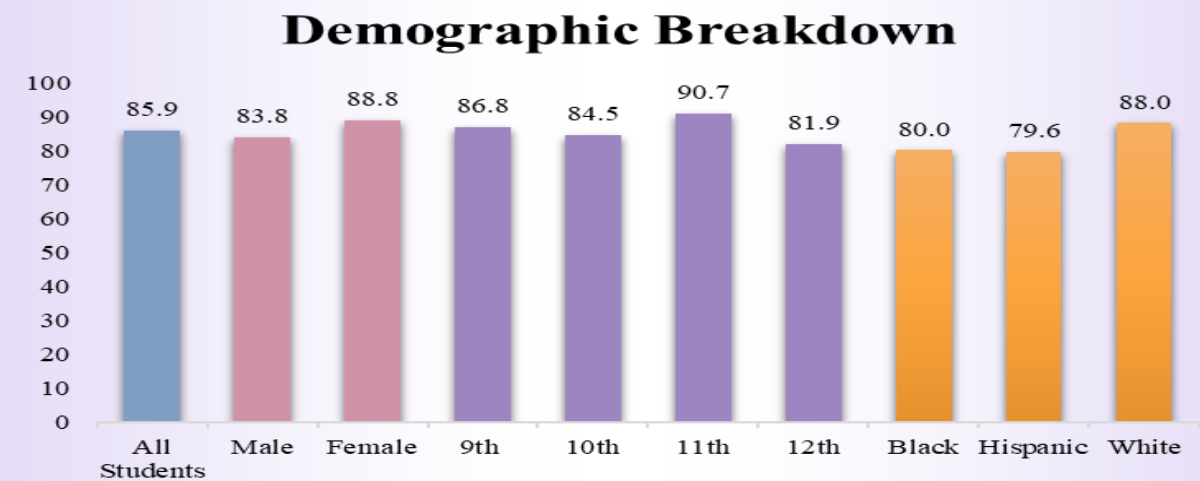


Sexual Identity



Helmet Use– All Terrain Vehicle (ATV)

Statewide, 85.9 percent of Arkansas students did not always wear a helmet.



## **Unintentional Injuries and Violence: Violence Related Behaviors**

### **QUESTIONS:**

13. During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club on school property?
14. During the past 12 months, on how many days did you carry a gun? (Do not count the days when you carried a gun only for hunting or for a sport, such as target shooting.)
15. During the past 30 days, on how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school?
16. During the past 12 months, how many times has someone threatened or injured you with a weapon such as a gun, knife, or club on school property?

### **RATIONALE:**

These questions measure violence-related behaviors and school-related violent behaviors. Violence is a significant public health issue among youth, with homicide being the third leading cause of death among the youth ages 13–19 years (6.3 per 100,000).(23) Homicide is the leading cause of death among non-Hispanic black youth ages 13–19 years (25.6 per 100,000) and the third leading cause of death for Hispanic youth ages 13–19 years (5.2 per 100,000).(23) Approximately 10% of homicide victims in the United States in 2018 were aged 13–19 years; of these victims, 90% were killed with a firearm.(23) Of all violent deaths that occurred on school property among youth aged 13–19 years between July 1994 and June 2018, 71% involved firearms.(24) Nearly 100% of school districts have a policy prohibiting weapon possession or use by high school students on school property.(25) Also, in 2018, almost 170,000 (577.4 per 100,000) nonfatal, physical assault injuries among youth aged 13–19 years were treated in U.S. emergency departments.(26)

Among high school students nationwide in 2019, 13% had carried a weapon and 3% had carried a weapon on school property on at least 1 day during the 30 days before the survey.(26) The prevalence of having carried a weapon decreased significantly 1991–2019 (26%–13%).(26) The prevalence of having carried a weapon on school property decreased during 1993–1997 (12%–9%) and then decreased more slowly during 1997–2019 (9%–3%).(26) For the first time in 2017 the question assessing prevalence of having carried a gun during the 12 months before the survey instructed respondents not to count the days when they carried a gun only for hunting or for a sport, such as target shooting. In 2019, 4% of high school students carried a gun (not counting the days when they carried a gun only for hunting or for a sport, such as target shooting) during the 12 months before the survey, decreasing slightly from 5% in 2017.(26) Among high school students nationwide in 2019, 9% had not gone to school on at least 1 day during the 30 days before the survey because they felt they would be unsafe at school or on their way to or from school and 7% had been threatened or injured with a weapon on school property one or more times during the 12 months before the survey.(26)

Among students nationwide, the prevalence of having not gone to school because of safety concerns increased significantly during 1993–2019 (4%–9%).(26) Among students nationwide,

the prevalence of having been threatened or injured with a weapon on school property did not change significantly during 1993–2003 (7%–9%) and then decreased during 2003–2019 (9%–7%).(4)

**QUESTIONS:**

17. During the past 12 months, how many times were you in a physical fight?

18. During the past 12 months, how many times were you in a physical fight on school property?

**RATIONALE:**

These questions measure the frequency of physical fights in general and on school property during the 12 months before the survey. Physical fighting is a marker for other problem behaviors (27) and is associated with serious injury-related health outcomes.(28,29) Among high school students nationwide in 2019, 22% had been in a physical fight and 8% had been in a physical fight on school property one or more times during the 12 months before the survey. (30) The percentage of high school students who were in a physical fight decreased during 1991–2011 (43%–33%) and then decreased further during 2011–2019 (33%–22%).(30) The percentage of high school students who were in a physical fight on school property also decreased significantly during 1993–2019 (16%–8%).(30)

**QUESTION:**

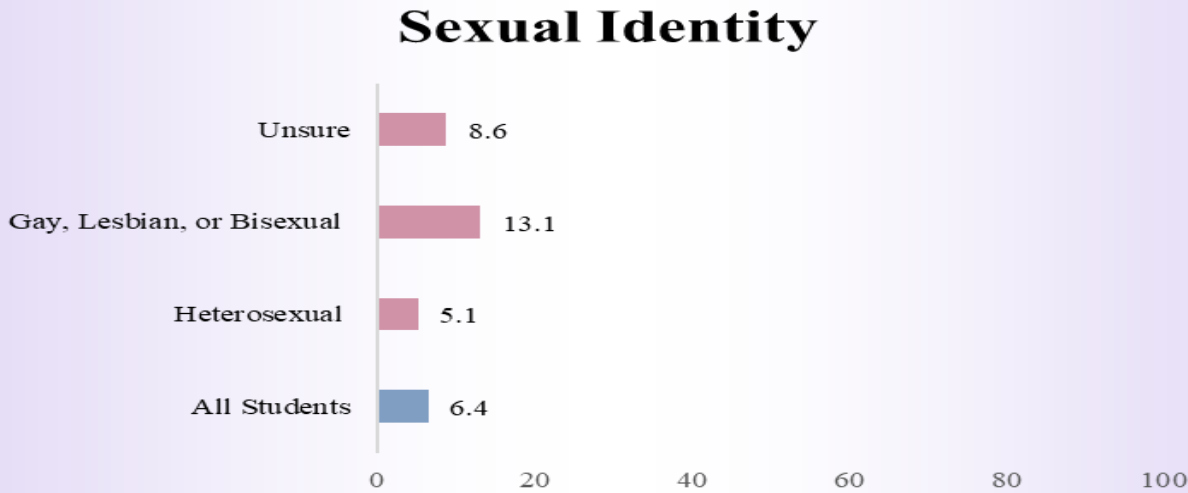
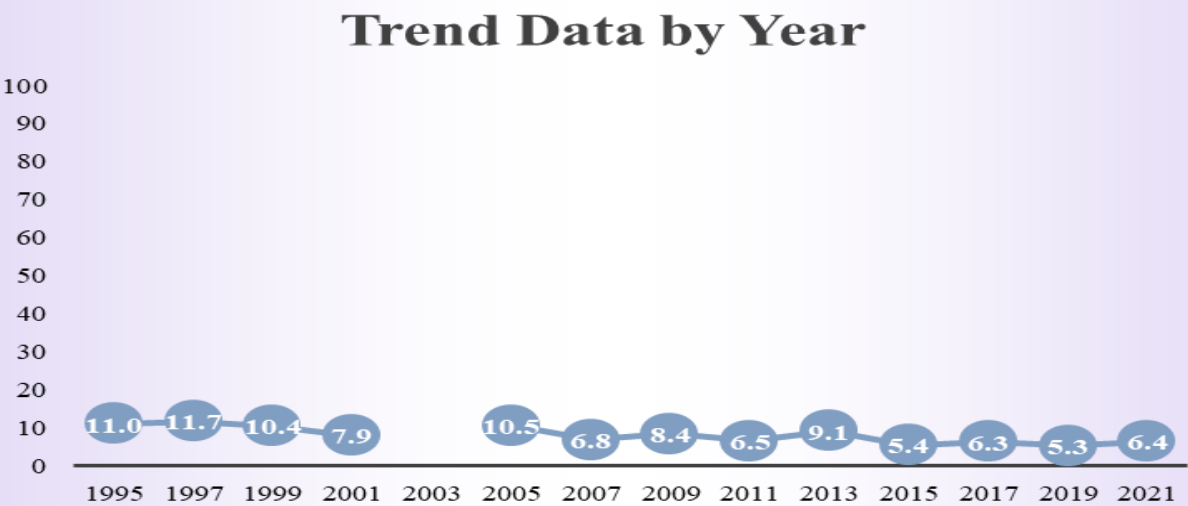
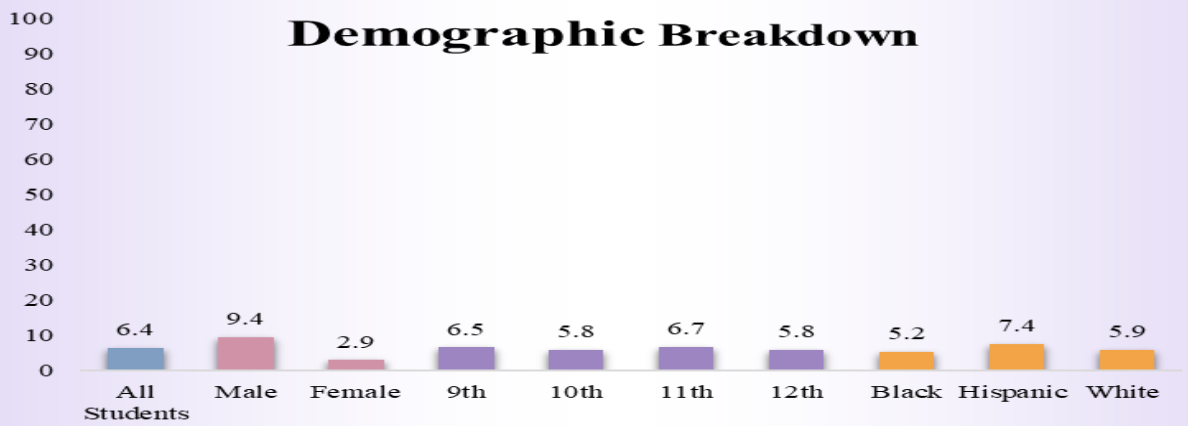
19. Have you ever seen someone get physically attacked, beaten, stabbed, or shot in your neighborhood?

**RATIONALE:**

Witnessing neighborhood violence has not been measured by the YRBS before, but data from a 2015 Monroe County survey found that 19% of students had seen someone shot, stabbed, or beaten in their community. (31) In addition, data from a 2009 survey of New York State adult residents found that 25% of adults sampled indicated they were exposed to violence in their community before age 18. (32) The World Health Organization considers exposure to community violence to be an adverse childhood experience.(33) Measuring exposure to community violence is important because Adverse Childhood Experiences (ACE) are a focus area of CDC, and this measure seeks to capture the community context for violence.

### Carried A Weapon on School Property

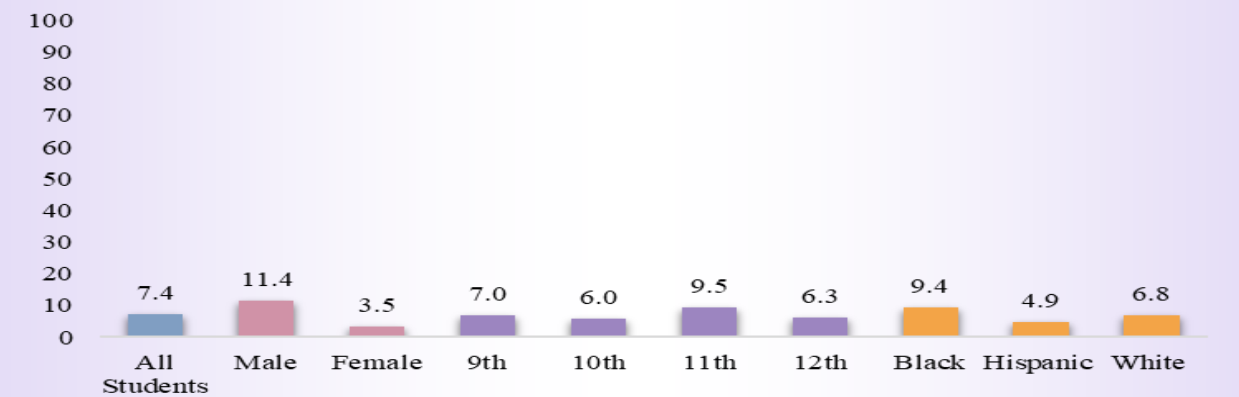
Statewide, 6.4 percent of Arkansas students carried a weapon such as a gun, knife, or club on school property on one or more of the past 30 days.



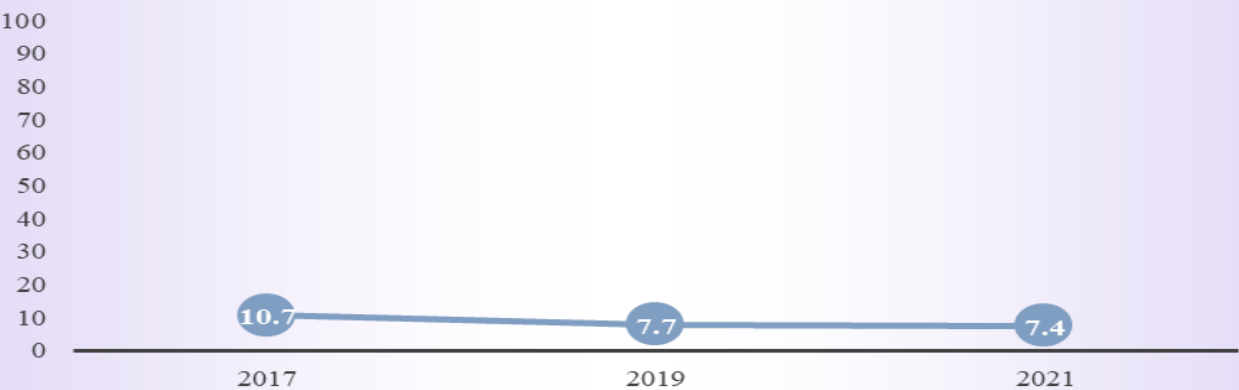
### Carried A Gun

During the past 12 months, 7.4 percent of Arkansas students carried a gun on one or more days (not counting for hunting or sport).

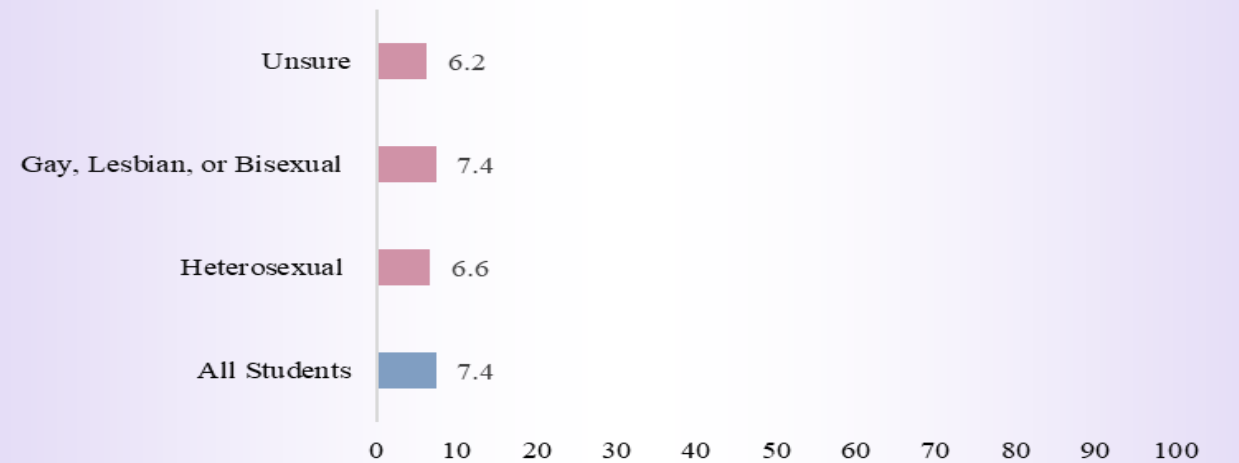
#### Demographic Breakdown



#### Trend by Data Year



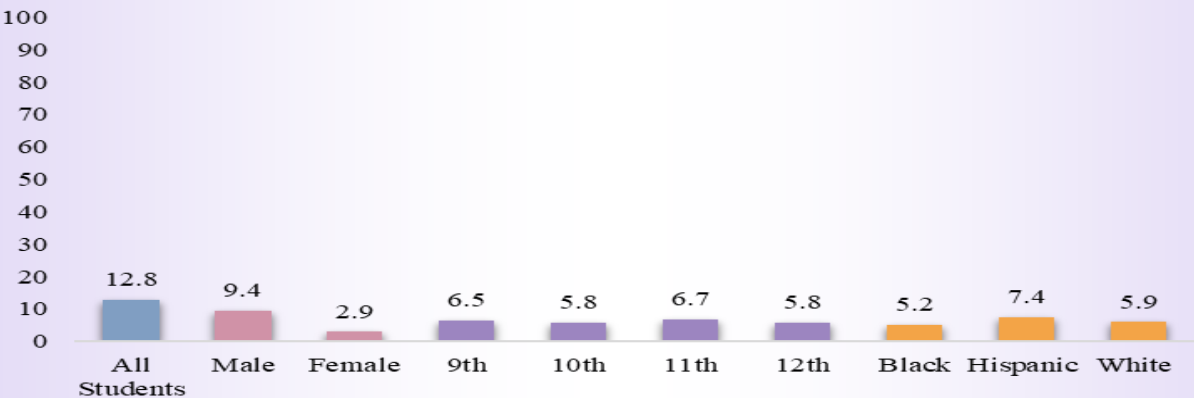
#### Sexual Identity



Did Not Go to School Because of Safety Concerns

During the past 30 days, 12.8 percent of Arkansas students did not go to school on one or more days because they felt unsafe at school or on their way to or from school.

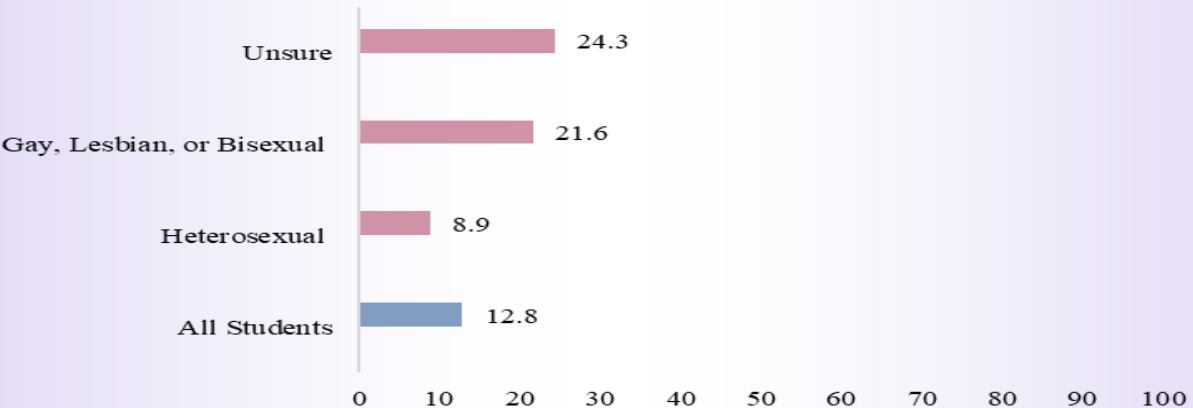
Demographic Breakdown



Trend Data By Year



Sexual Identity

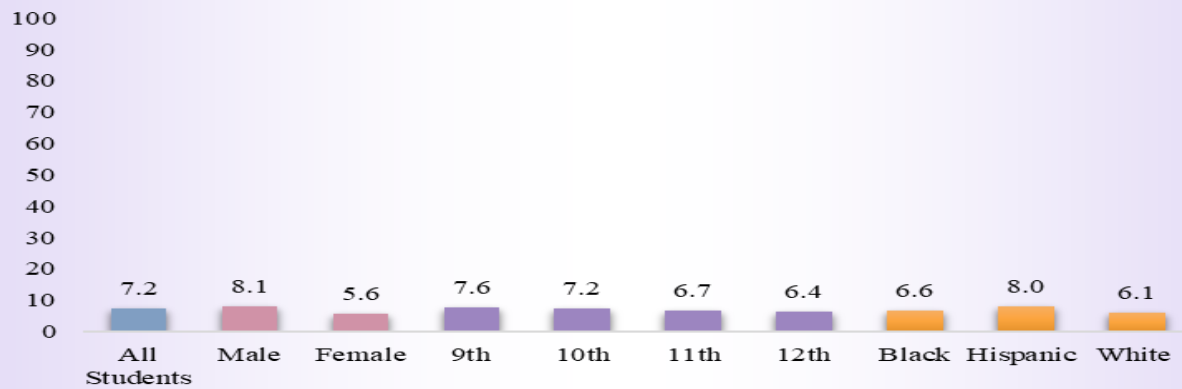




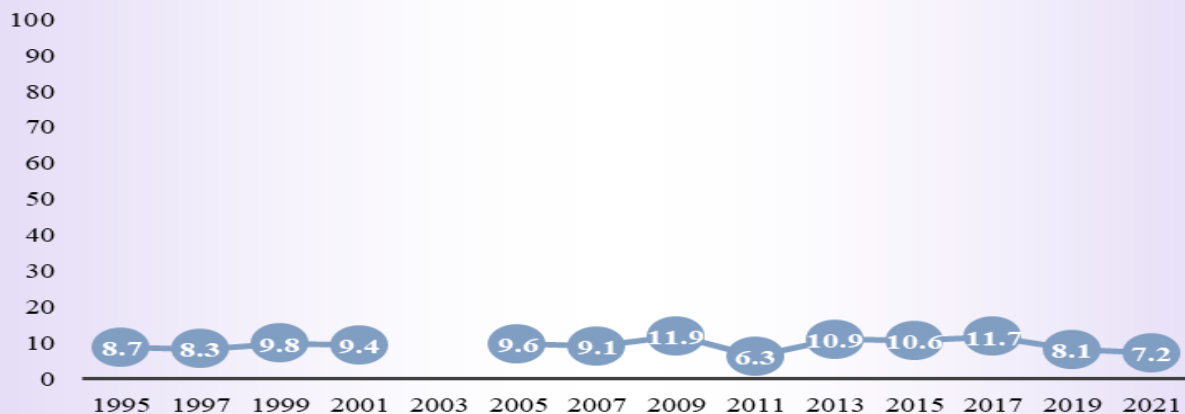
## Threatened or Injured with a Weapon on School Property

During the past 12 months, 7.2 percent of Arkansas students had been threatened or injured, one or more times, with a weapon such as a gun, knife, or club on school property.

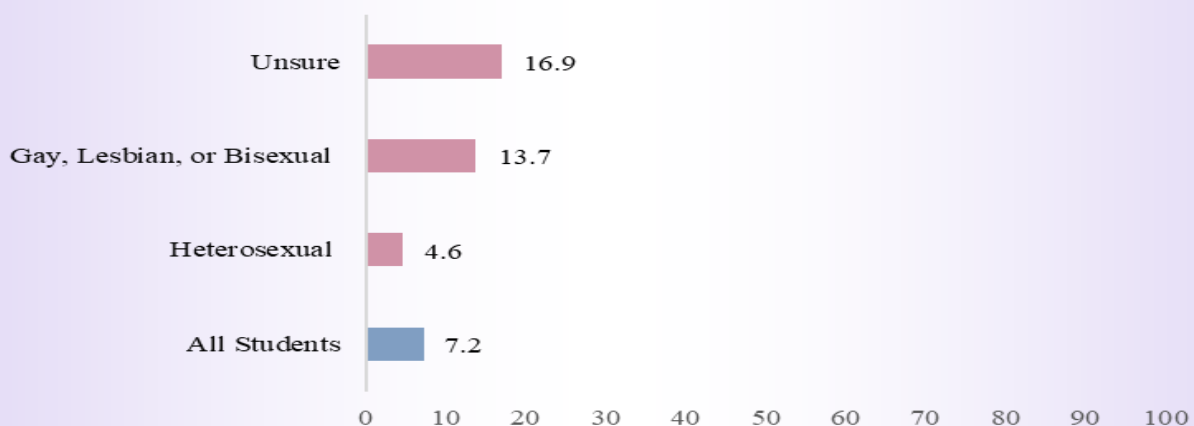
### Demographic Breakdown



### Trend Data By Year



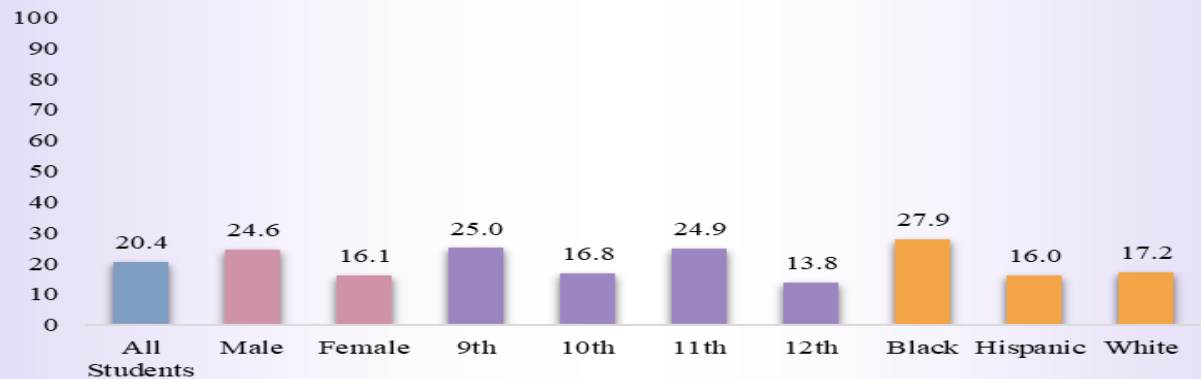
### Sexual Identity



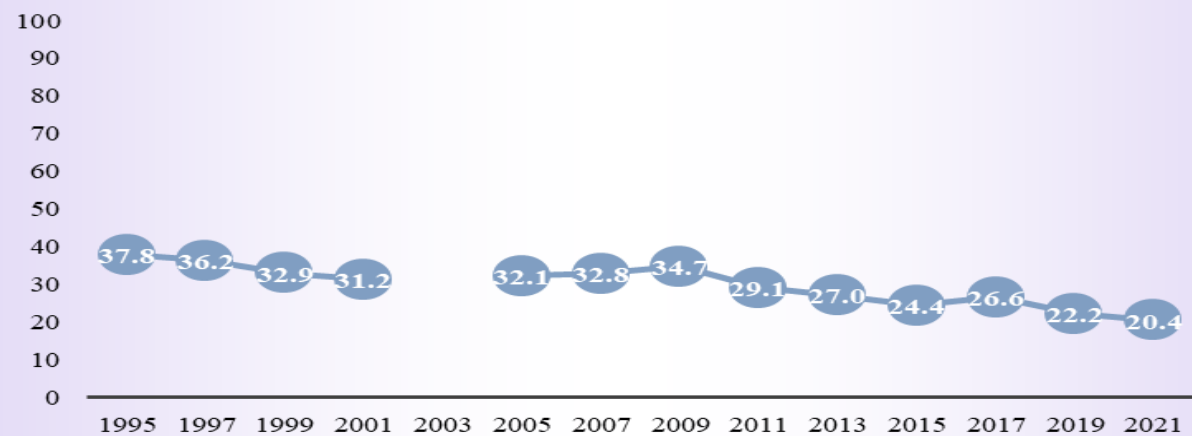
**In a Physical Fight**

Statewide, 20.4 percent of Arkansas students were in a physical fight one or more times during the past 12 months.

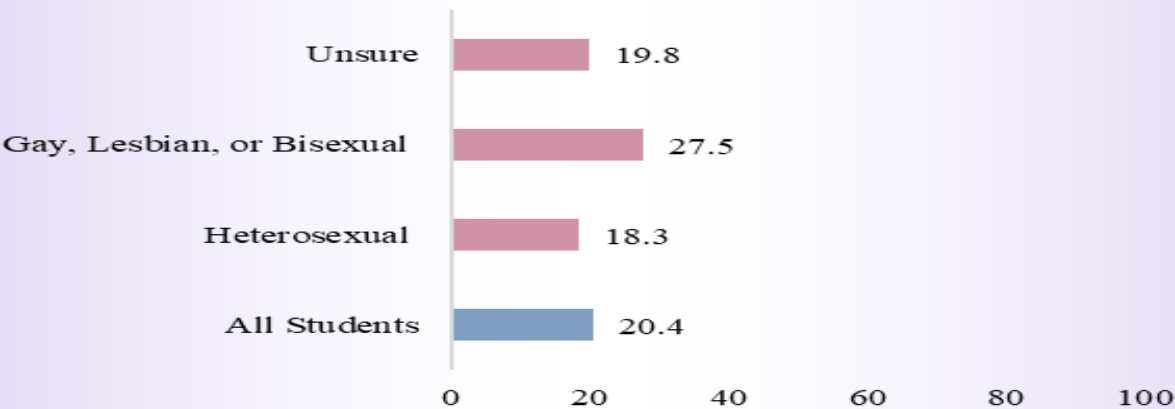
**Demographic Breakdown**



**Trend Data by Year**

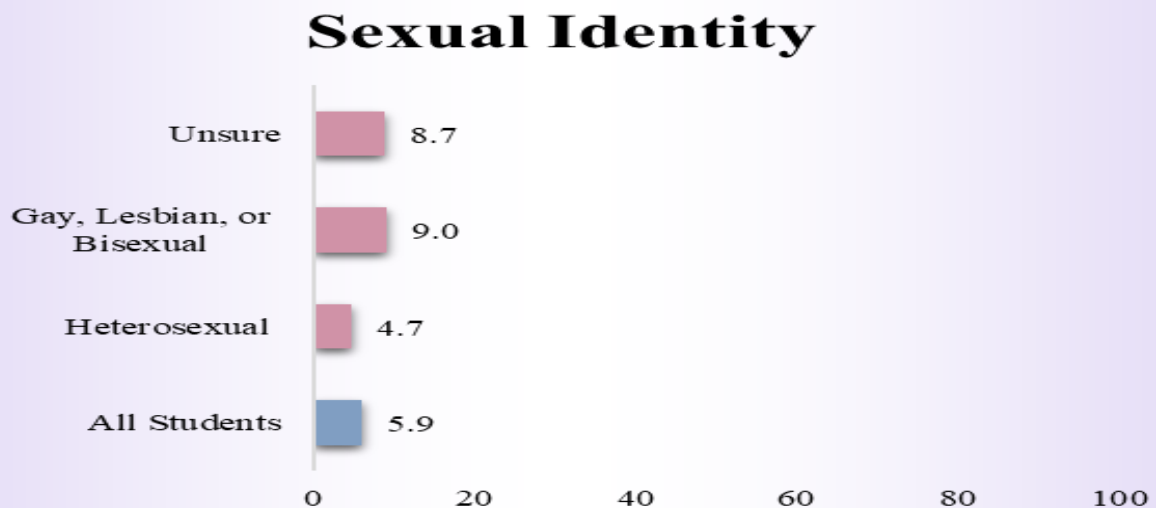
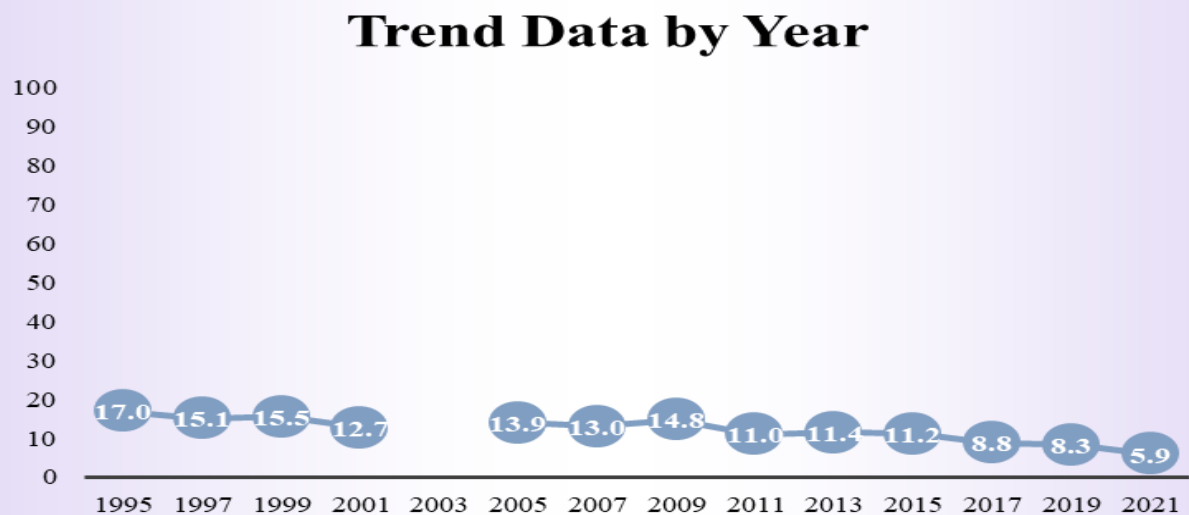
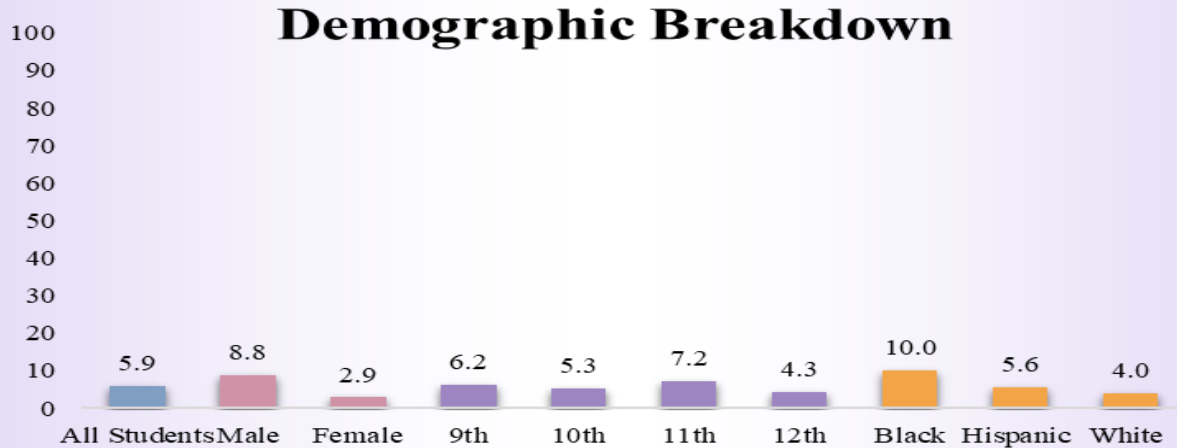


**Sexual Identity**



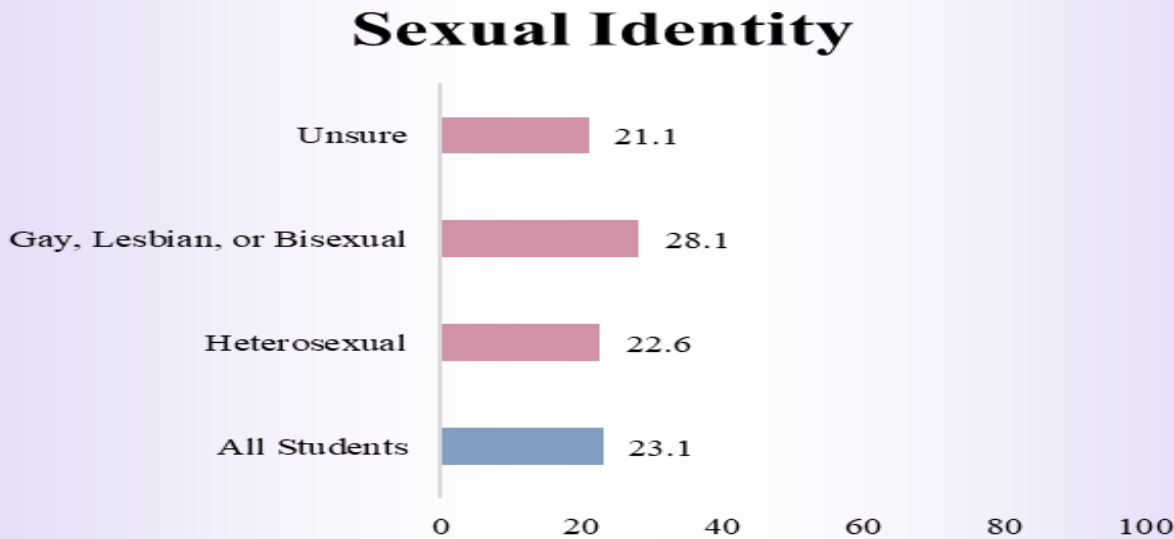
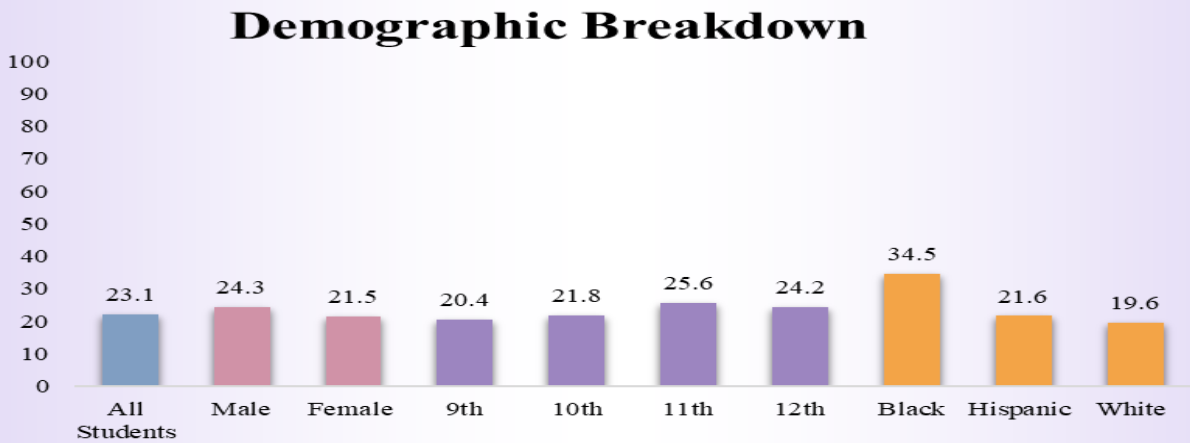
## In A Physical Fight on School Property

Statewide, 5.9 percent of students were in a physical fight on school property one or more times during the past 12 months.



Witnessed Acts of Physical Violence

Statewide, 23.1 percent of students witnessed someone get physically attacked, beaten, stabbed, or shot in their neighborhood.



## **Unintentional Injuries and Violence: Dating Violence**

### **QUESTIONS:**

20. Have you ever been physically forced to have sexual intercourse when you did not want to?

21. During the past 12 months, how many times did anyone force you to do sexual things that you did not want to do? (Count such things as kissing, touching, or being physically forced to have sexual intercourse.)

22. During the past 12 months, how many times did someone you were dating or going out with force you to do sexual things that you did not want to do? (Count such things as kissing, touching, or being physically forced to have sexual intercourse.)

23. During the past 12 months, how many times did someone you were dating or going out with physically hurt you on purpose? (Count such things as being hit, slammed into something, or injured with an object or weapon.)

### **RATIONALE:**

These questions measure the frequency of sexual violence and dating violence experienced by students. Sexual and dating violence victimization are associated with a range of negative consequences including suicide ideation and attempts, major depressive episodes, increased alcohol, tobacco, and other substance use, eating disorders, and risky sexual behavior.(34-39) According to the Centers for Disease Control and Prevention's National Intimate Partner and Sexual Violence Survey, 1 in 5 U.S. women have experienced (completed or attempted) rape and 1 in 14 U.S. men have been made to sexually penetrate someone else (completed or attempted) in their lifetime; among female victims of rape, 43.2% were under 18 years old at the time of their first victimization, and among male victims of being made to penetrate, 25.9% were under 18 at the time of the first victimization.(40) About 1 in 4 women (23.2%) and 1 in 7 men (13.9%) have experienced severe physical violence by an intimate partner (e.g., hit with a fist or something hard, beaten, slammed against something) at some point in their lifetime.(41) Among adults who ever experienced contact sexual violence, physical violence, and/or stalking by an intimate partner, 25.6% of women and 14.4% of men first experienced some form of violence by that partner between 11 and 17 years of age.(41)

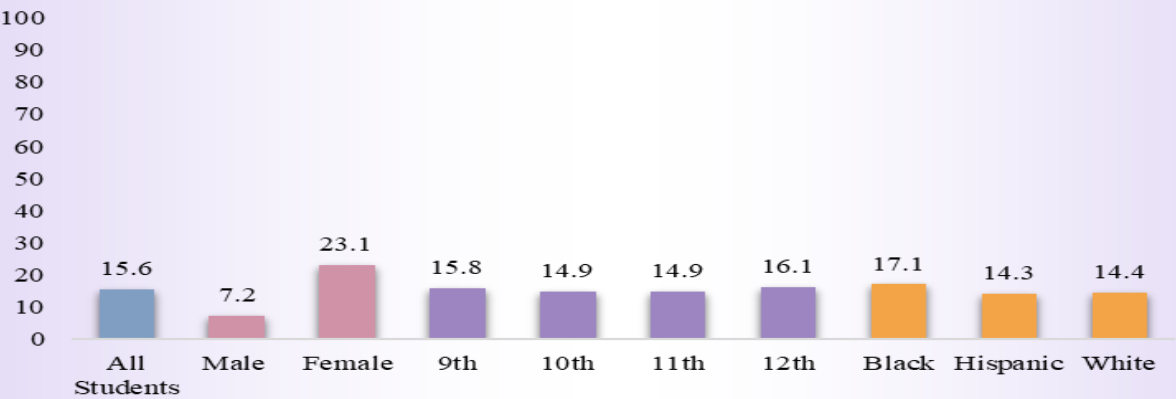
All three sexual violence questions are important for understanding the public health burden of sexual violence against young people, guiding prevention strategies, and monitoring changes over time. These data are particularly useful for monitoring changes in trends and the effects of prevention efforts such as CDC's Rape Prevention Education (RPE).(42) Data on forced sexual activity by any perpetrator — not just a dating partner — provides a better understanding of the burden of sexual violence among high school students because studies have shown that perpetrators can include current or former friends, acquaintances, family members, and other adults. (7,10) Preventing sexual violence by any perpetrator and dating violence are focus areas for CDC because they are types of adverse childhood experiences. Knowing the proportion of high school students who are sexually and physically victimized by a dating partner is also

intercourse increased during 1991–2005 (46%–63%) and then decreased during 2005–2019 (63%–54%).(43)

Forced Sexual Intercourse

Statewide, 15.6 percent of Arkansas students had ever been physically forced to have sexual intercourse when they did not consent.

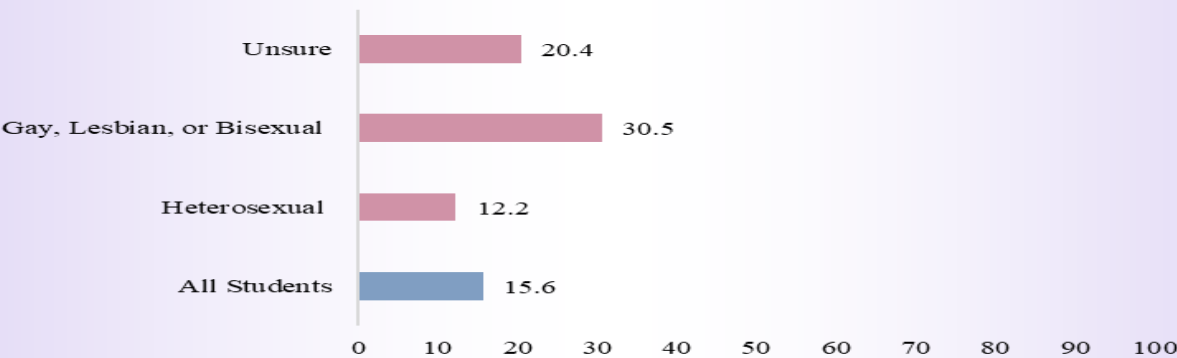
Demographic Breakdown



Trend Data by Year



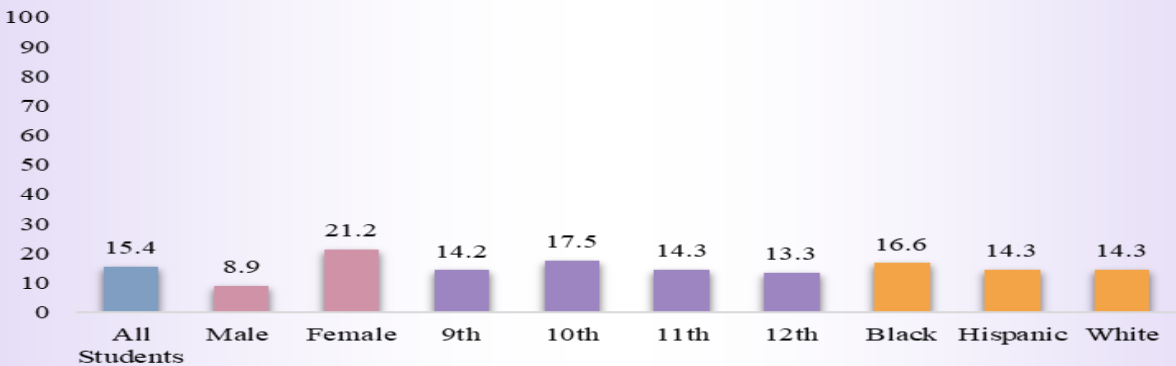
Sexual Identity



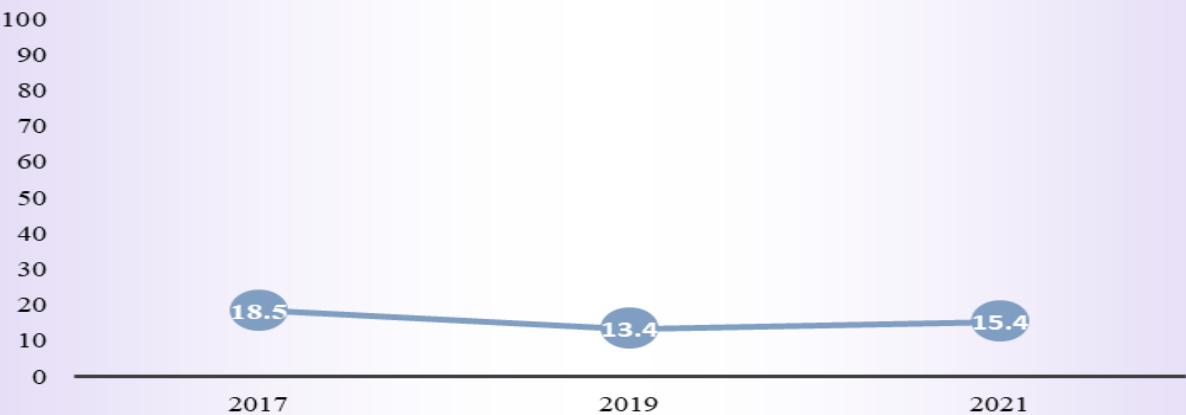
Experienced Sexual Violence

Statewide, 15.4 percent of Arkansas students experienced sexual violence during the past 12 months (being forced by anyone to do sexual things such as kissing, touching, or being physically forced to have sexual intercourse, without consent).

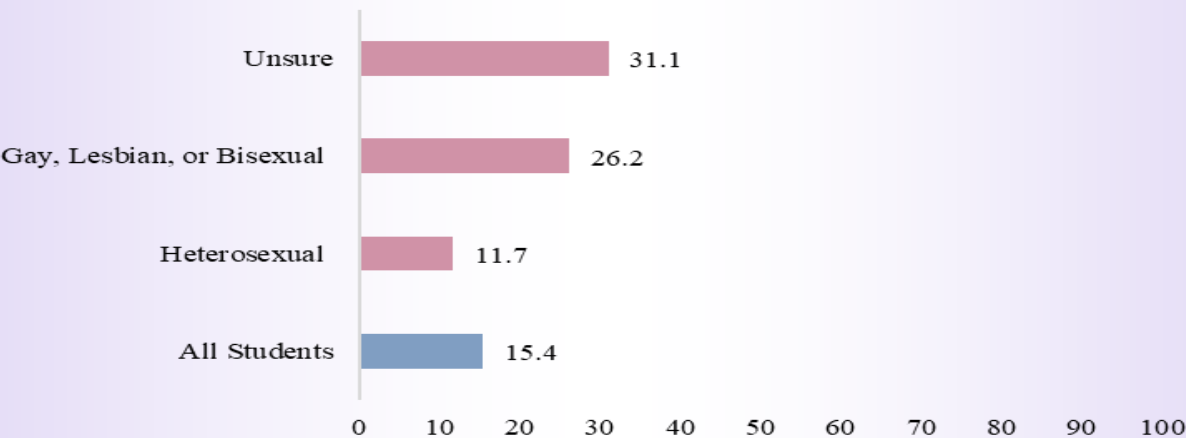
Demographic Breakdown



Trend Data by Year



Sexual Identity

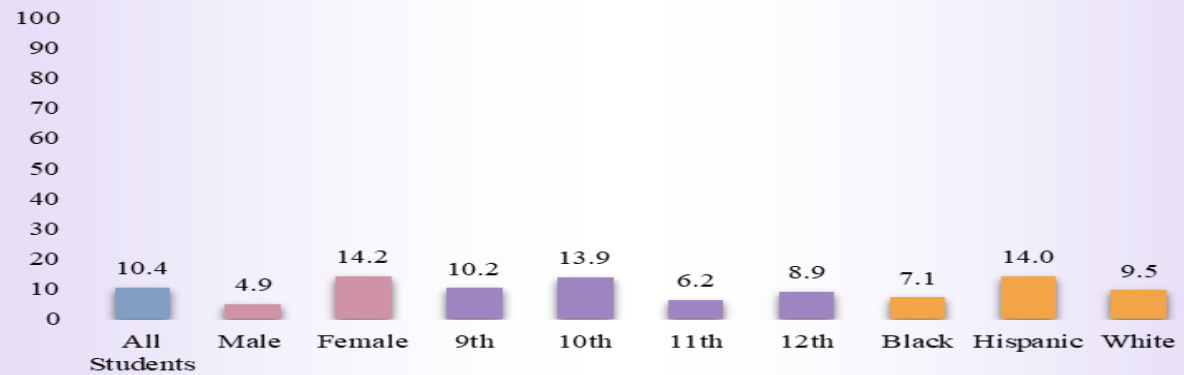




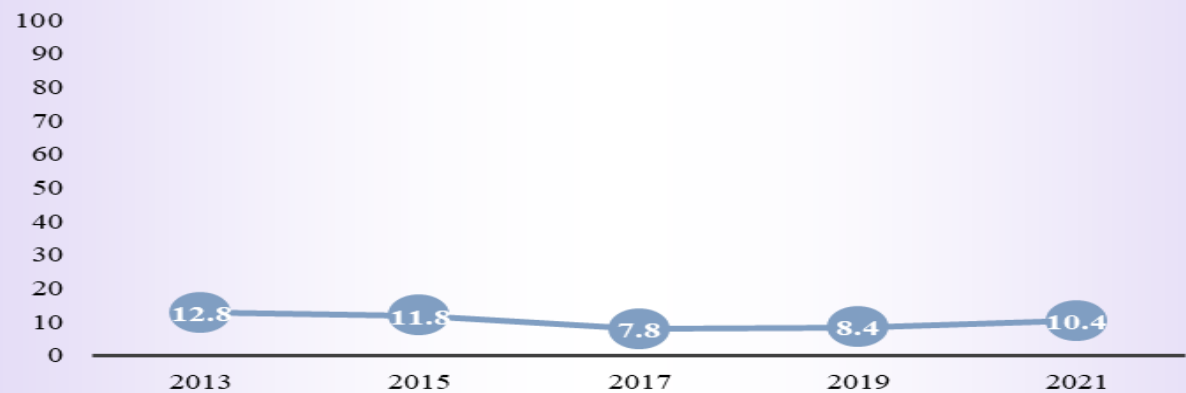
Sexual Dating Violence

Among students who dated or went out with someone during the past 12 months, 10.4 percent of Arkansas students had been forced by someone they were dating or going out with to do sexual things without consent.

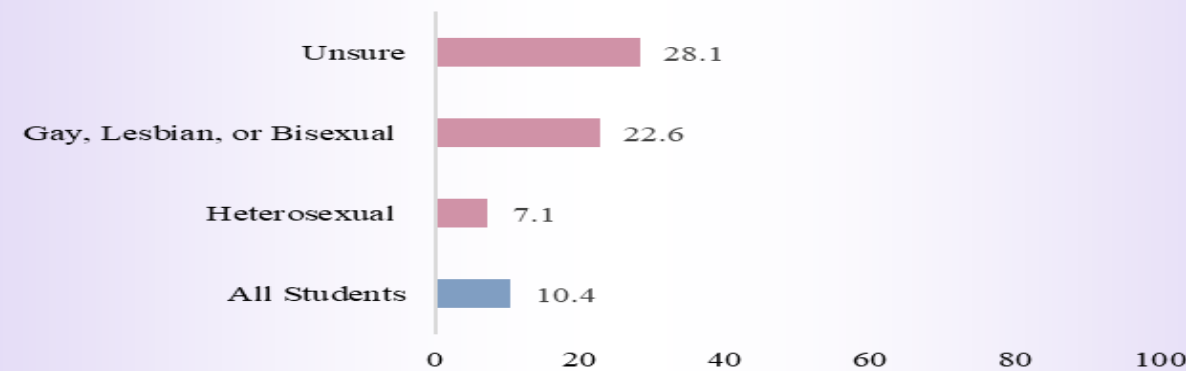
Demographic Breakdown



Trend Data by Year



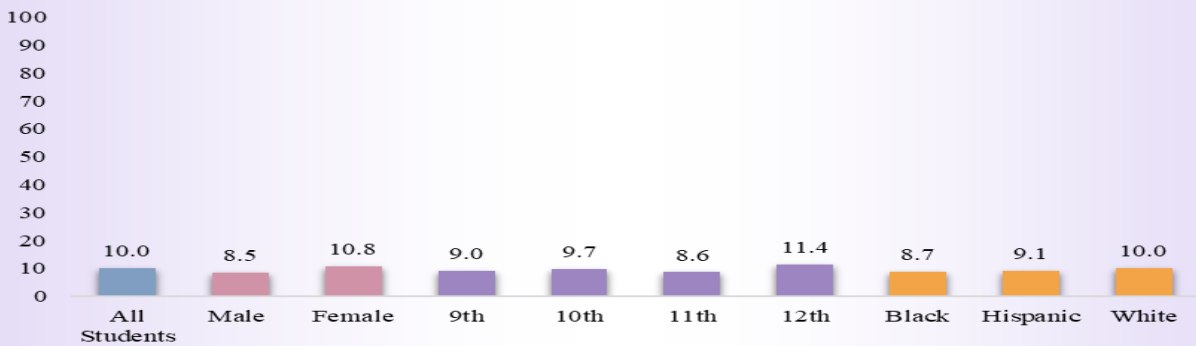
Sexual Identity



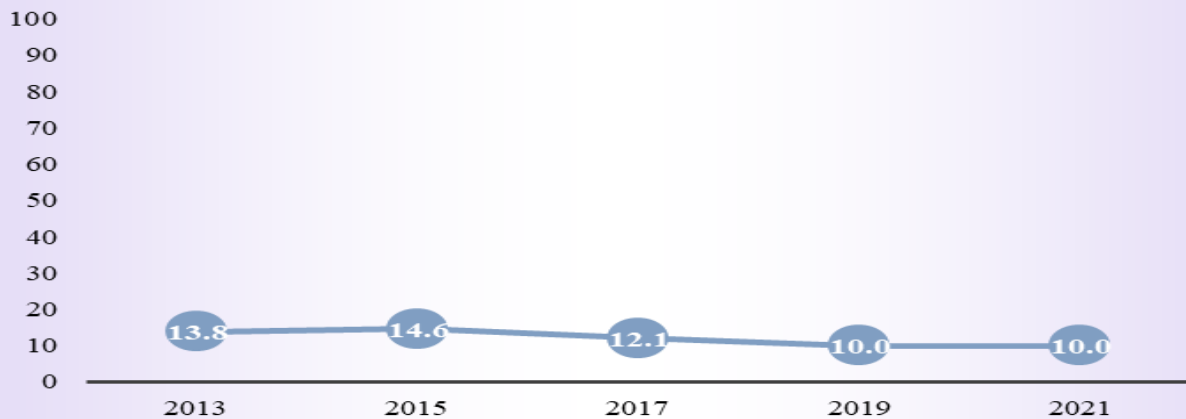
## Physical Dating Violence

Among students who dated or went out with someone during the past 12 months, 10 percent had been physically hurt or purposely hurt by someone they were dating or went out with one or more times during the past 12 months.

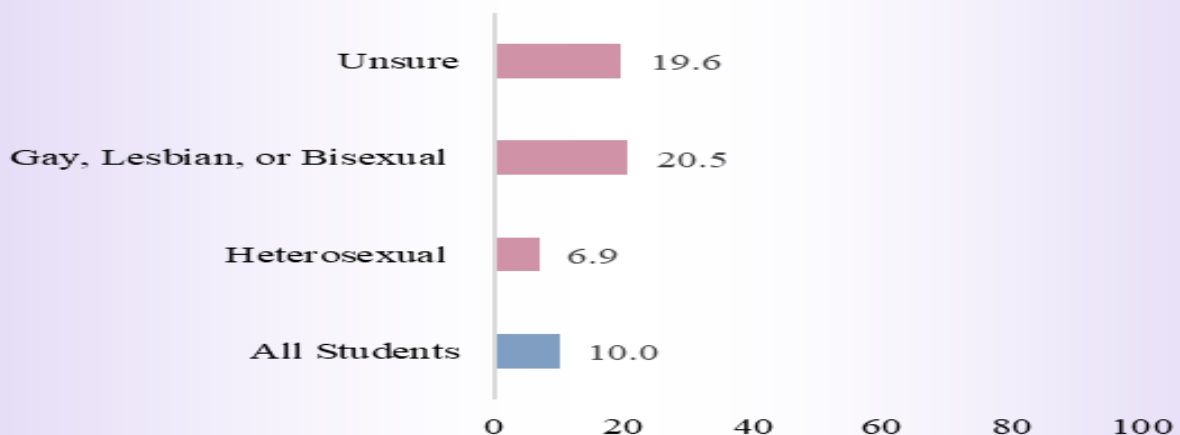
### Demographic Breakdown



### Trend Data by Year



### Sexual Identity



## **Unintentional Injuries and Violence: Bullying**

### **QUESTIONS:**

24. During the past 12 months, how many times has someone stolen or deliberately damaged your property such as your car, clothing, or books on school property?
25. During the past 12 months, have you ever been bullied on school property?
26. During the past 12 months, have you ever been electronically bullied? (Count being bullied through texting, Instagram, Facebook, or other social media.)
27. During the past 12 months, have you ever been the victim of teasing or name calling because someone thought you were gay, lesbian, or bisexual?
28. Do you agree or disagree that harassment and bullying by other students is a problem at your school?

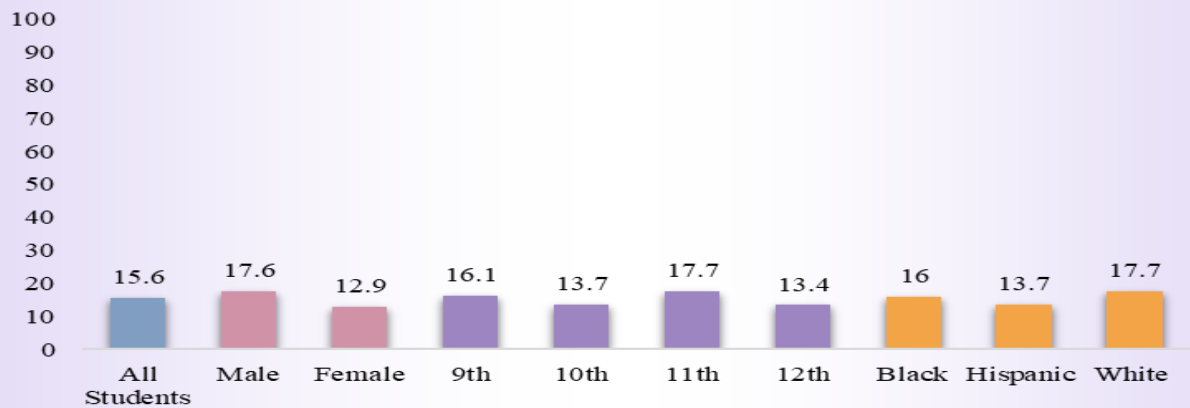
### **RATIONALE:**

These questions measure the frequency of bullying victimization. Bullying victimization is associated with depression,(46-47) suicidal ideation,(46,48-49) self-injury,(46) suicide attempts,(46,48-49) increased odds of repeated common health problems,(50) school absenteeism,(51) psychological distress,(50) externalizing problems,(52) sleep disturbances,(48) and feeling unsafe at school.(51) Electronic bullying victimization has been associated with discipline problems in school, skipping school, weapon carrying,(53) psychological distress,(54) lower self-esteem,(55) depression,(46) suicidal ideation,(49) self-injury,(46) and suicide attempts.(46,49) Among high school students nationwide in 2019, 20% reported that they had been bullied on school property during the 12 months before the survey and 16% had been electronically bullied through texting, Instagram, Facebook, or other social media during the 12 months before the survey. (56) No significant trends over time were observed for either bullying on school property or electronic bullying.

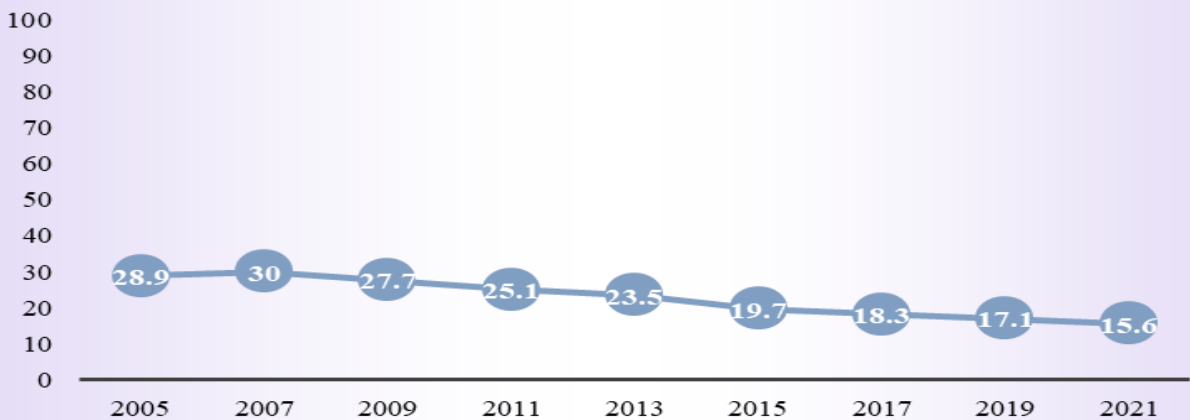
**Reported Stolen or Damaged Property on School Grounds**

During the past 12 months, 15.6 percent of students reported that their property had been stolen or deliberately damaged on school property one or more times.

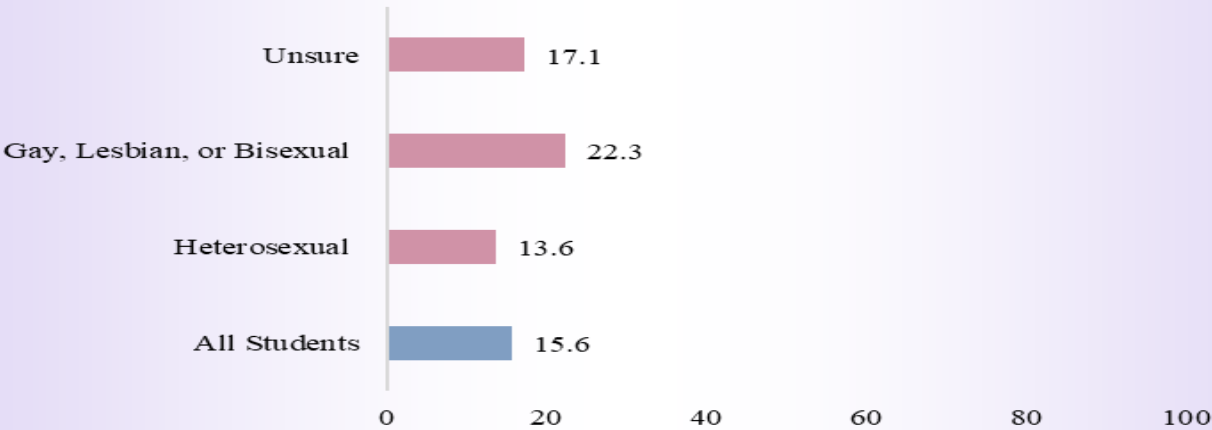
**Demographic Breakdown**



**Trend Data by Year**

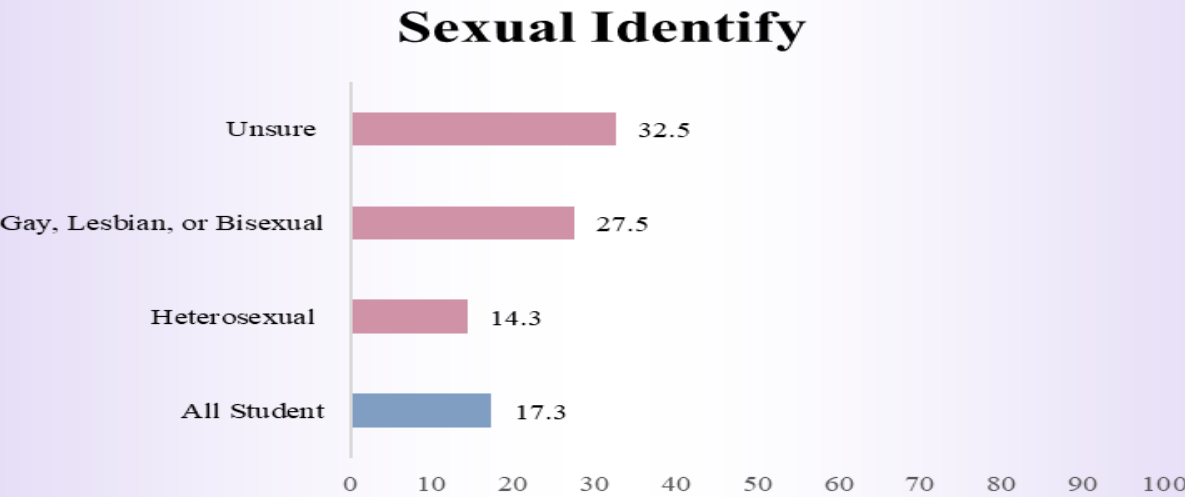
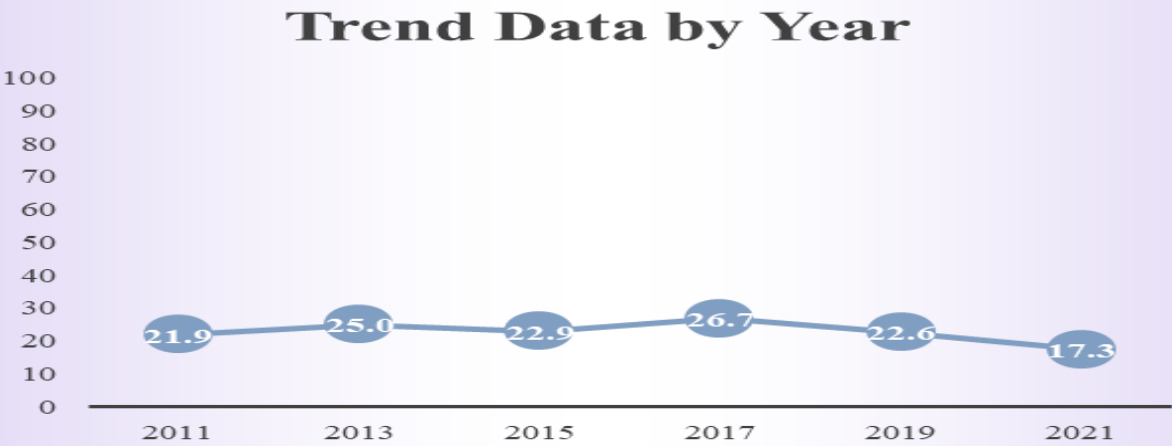
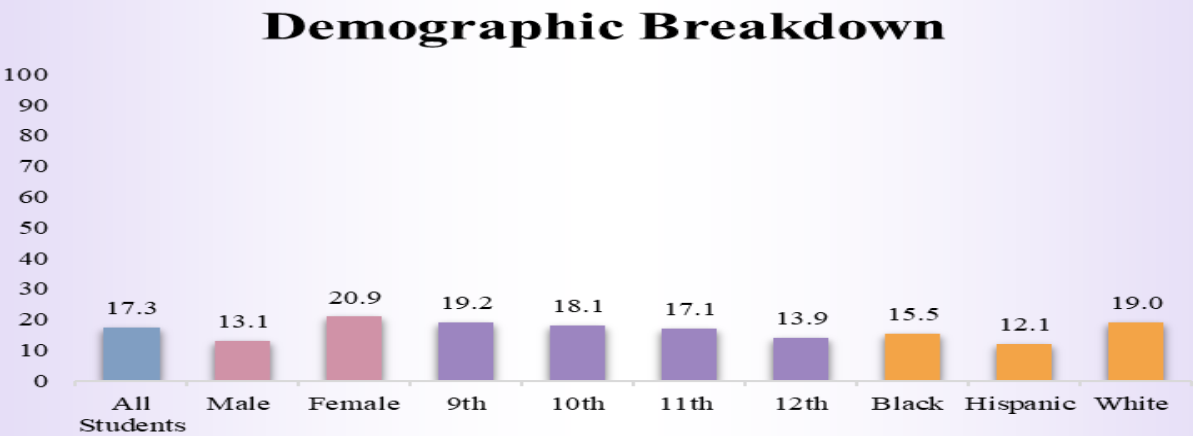


**Sexual Identity**



**Bullied on School Property**

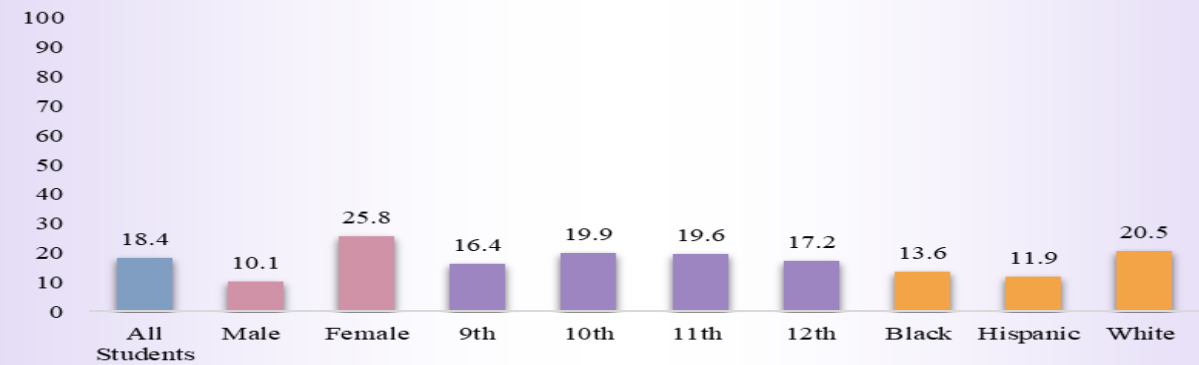
During the past 12 months, 17.3 percent of students have been bullied on school property.



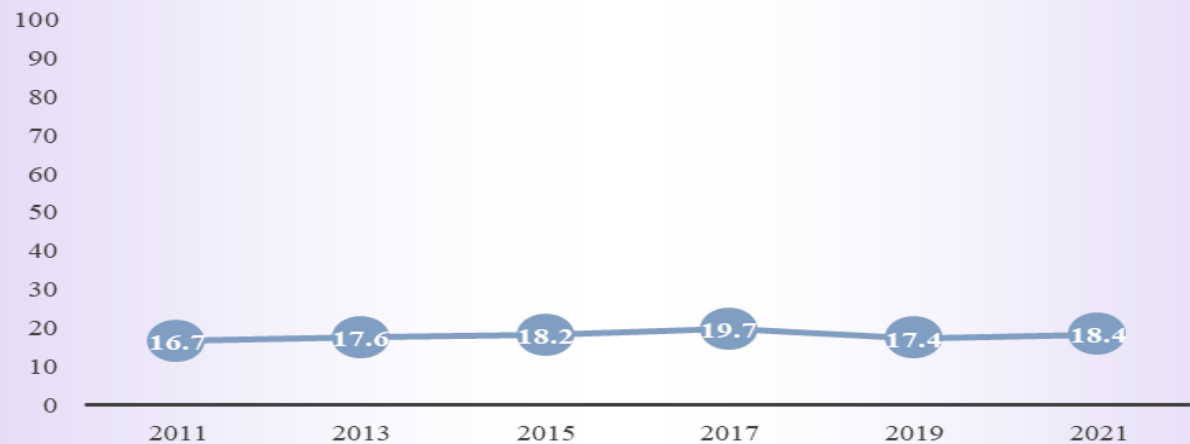
Electronic Bullying

Statewide, 18.4 percent of Arkansas students had been electronically bullied during the past 12 months.

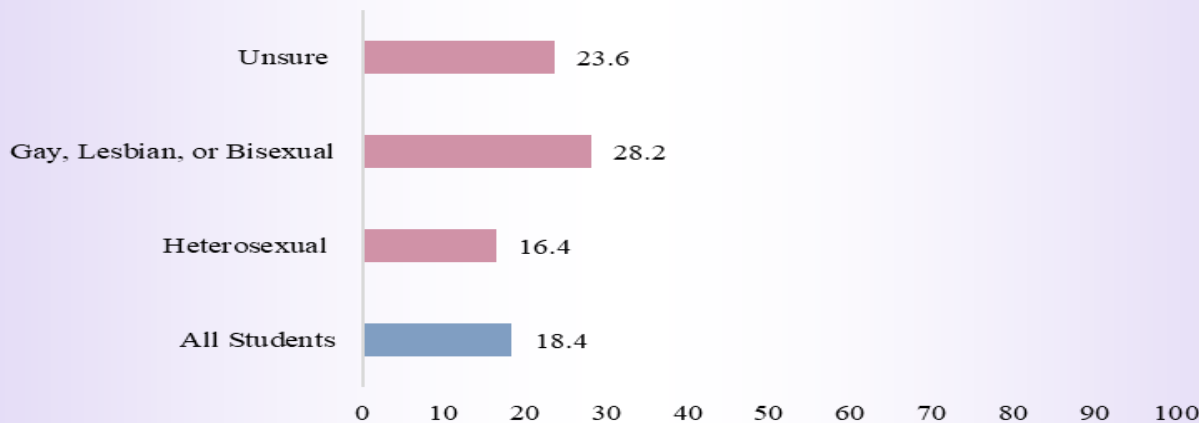
Demographic Breakdown



Trend Data by Year



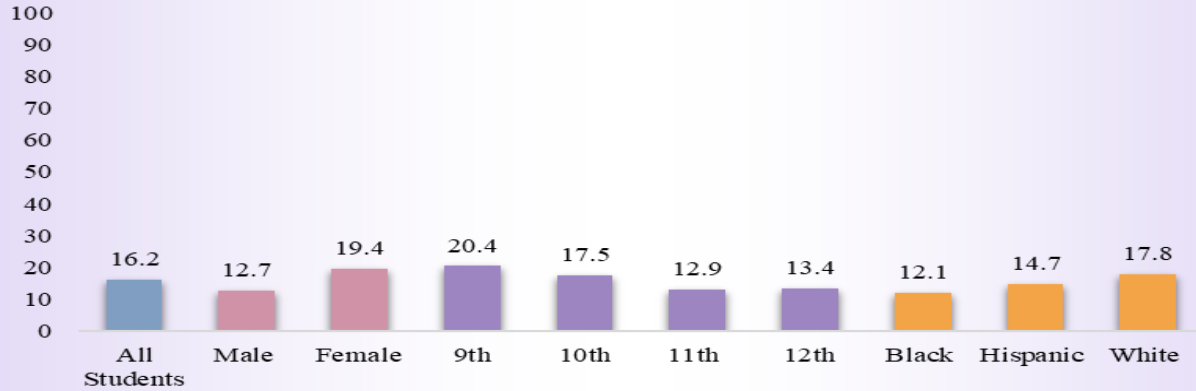
Sexual Identity



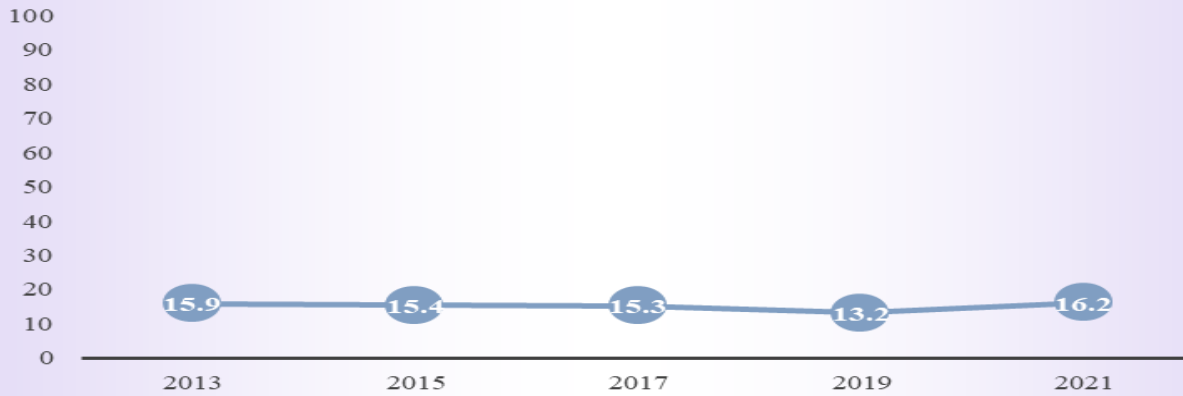
## Bullying and Sexual Orientation

During the past 12 months, 16.2 percent of students have been victim of teasing or name calling because someone thought they were gay, lesbian, or bisexual.

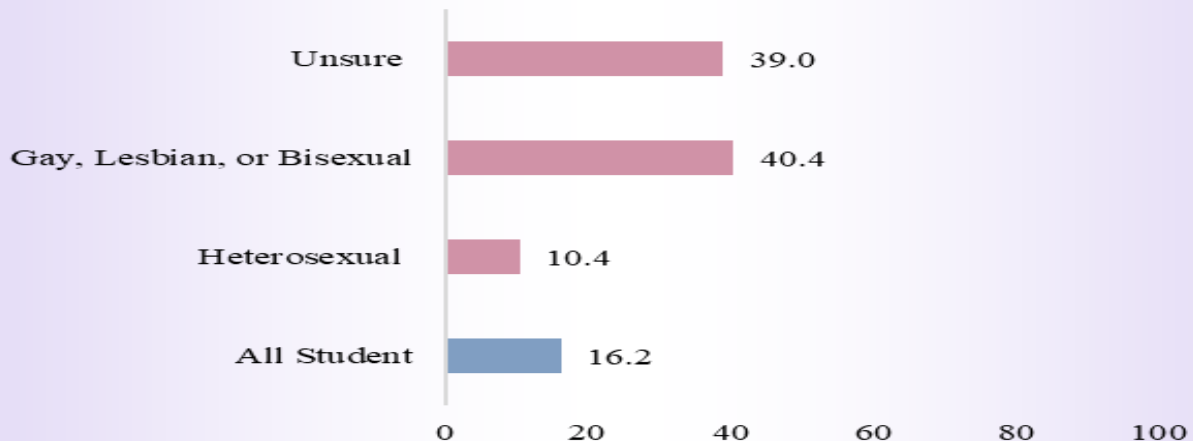
### Demographic Breakdown



### Trend Data by Year



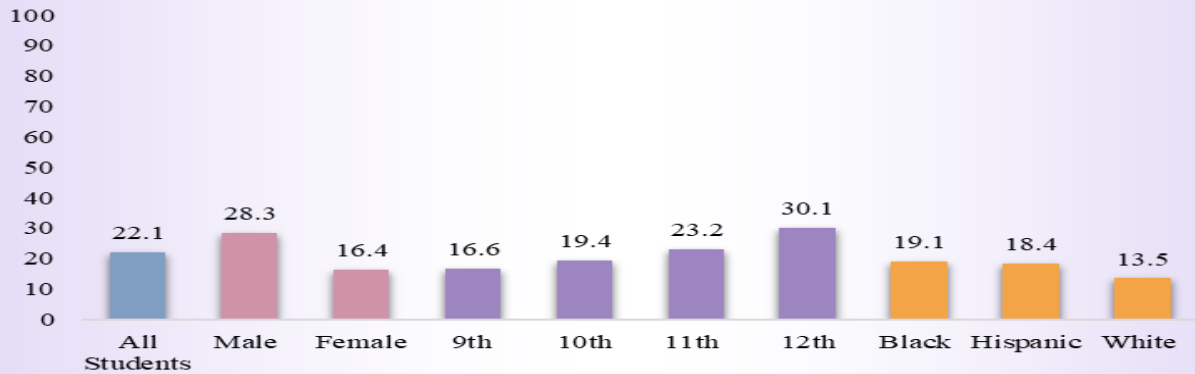
### Sexual Identify



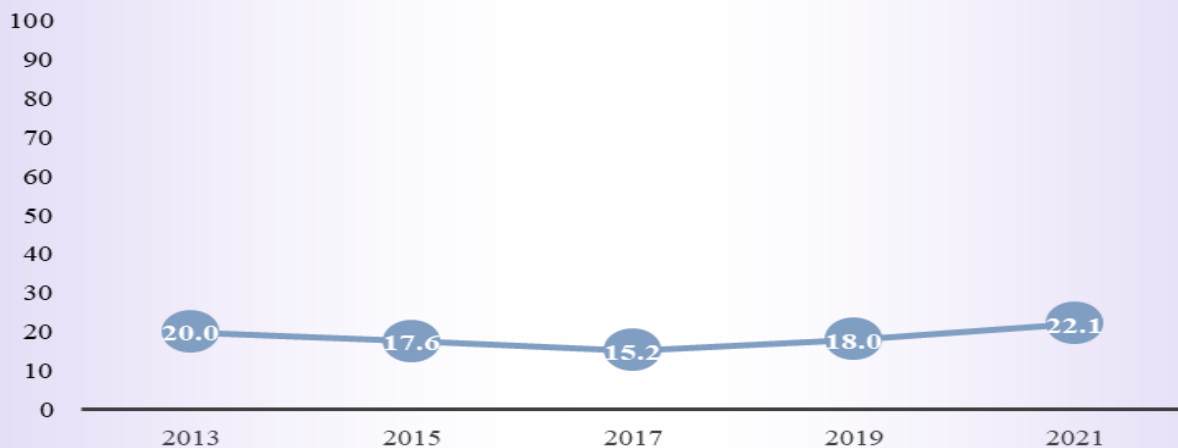
## Harassment and Bullying

Statewide, 22.1 percent of Arkansas students disagree or strongly disagree that harassment and bullying is a problem at their school.

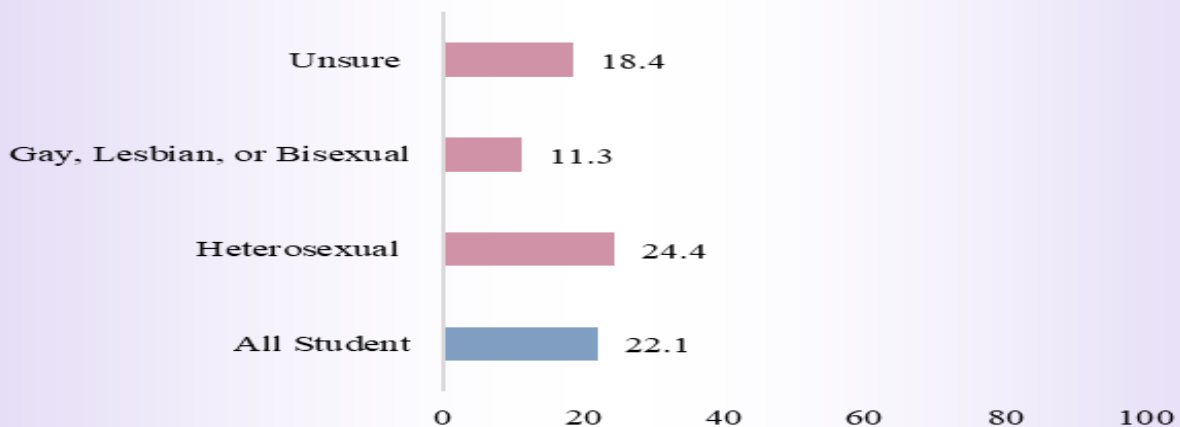
### Demographic Breakdown



### Trend Data by Year



### Sexual Identity





## **Unintentional Injuries and Violence: Depression and Suicide**

### **QUESTIONS:**

29. During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?

30. During the past 12 months, did you ever seriously consider attempting suicide?

31. During the past 12 months, did you make a plan about how you would attempt suicide?

32. During the past 12 months, how many times did you attempt suicide?

33. If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?

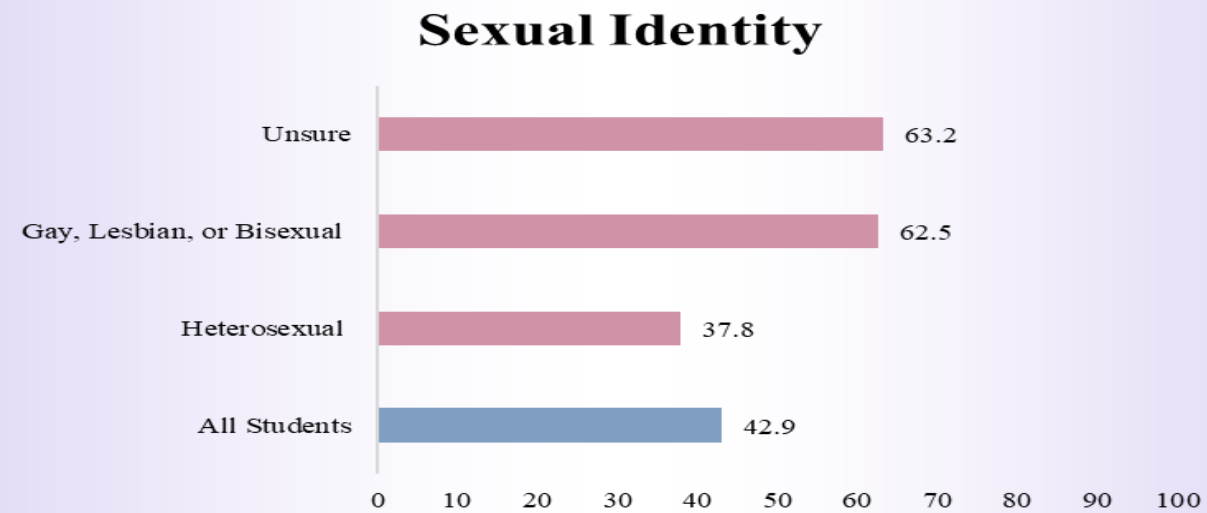
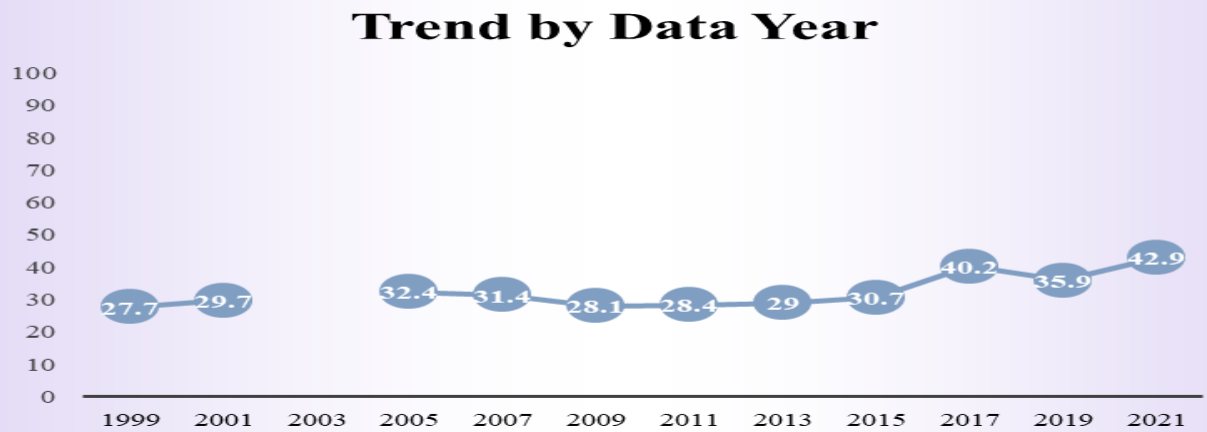
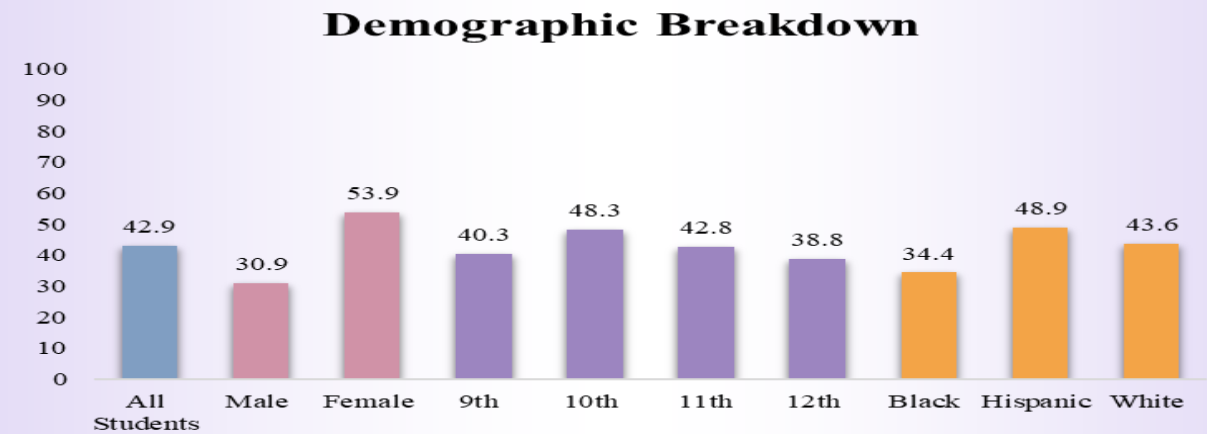
90. During the past 30 days, how often was your mental health not good? (Poor mental health includes stress, anxiety, and depression.)

### **RATIONALE:**

These questions measure sadness, suicidal ideation and planning, attempted suicide, and the severity of suicide attempts. Suicide is the second leading cause of death among youth aged 13–19 years. (57) The suicide rate for persons aged 13–19 years was 9.6 per 100,000 in 2018. (57) A prior suicide attempt is one of the most significant risk factors for a suicide fatality.(58,59) Among high school students nationwide in 2019, 37% felt so sad or hopeless almost every day for 2 or more weeks in a row that they stopped doing some usual activities.(60) Among high school students nationwide in 2019, 19% had seriously considered attempting suicide, 16% had made a plan about how they would attempt suicide, 9% had attempted suicide one or more times, and 3% had a suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse during the 12 months before the survey.(60) The percentage of students who seriously considered attempting suicide decreased during 1991–2007 (29%–15%) and then increased slightly during 2007–2019 (15%–16%).(5) The percentage of students who made a suicide plan decreased during 1991–2009 (19%–11%) and then increased during 2009–2019 (11%–16%).(5) The percentage of students who attempted suicide slightly increased during 1991–2019 (7%–9%).(5) No significant trends over time were observed for being injured in a suicide attempt.

Felt Sad or Hopelessness

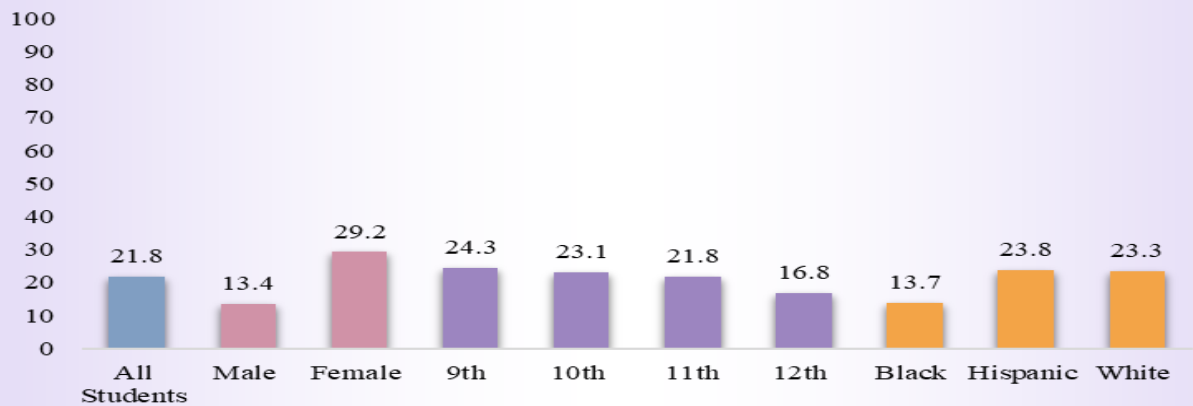
During the past 12 months, 42.9 percent of students felt sad or hopelessness almost everyday for two weeks or more in a row that they stopped doing their usual activities.



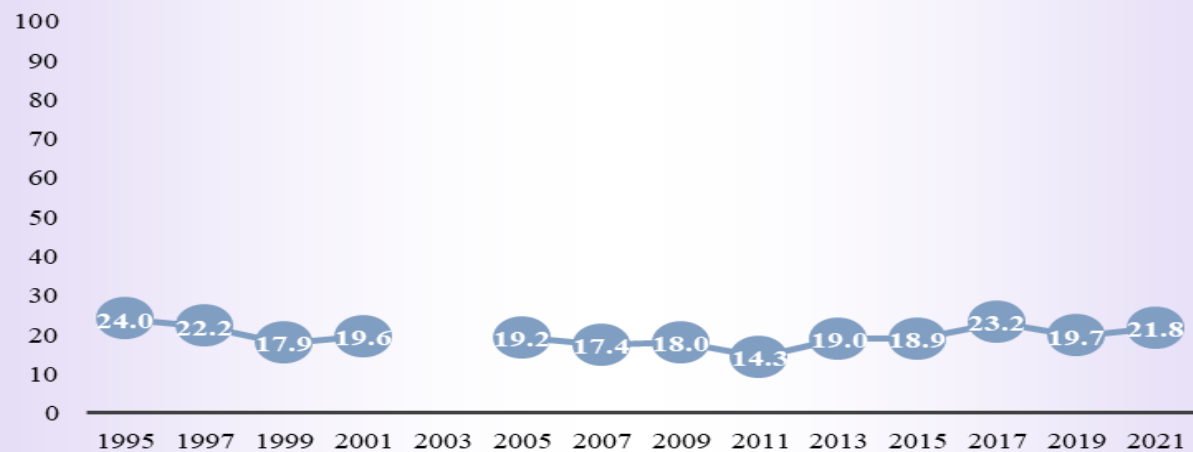
Seriously Considered Suicide

During the past 12 months, 21.8 percent of students seriously considered suicide.

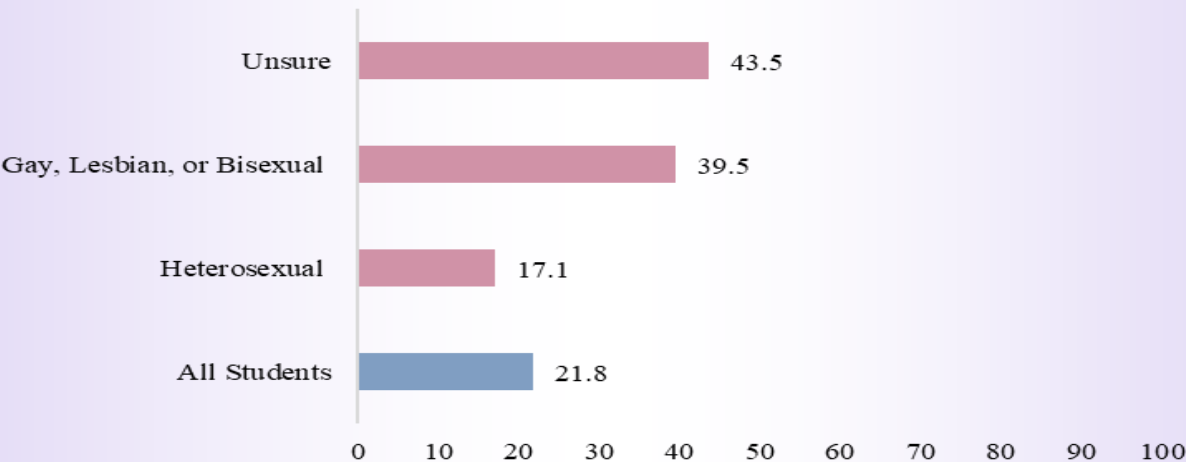
Demographic Breakdown



Trend Data by Year

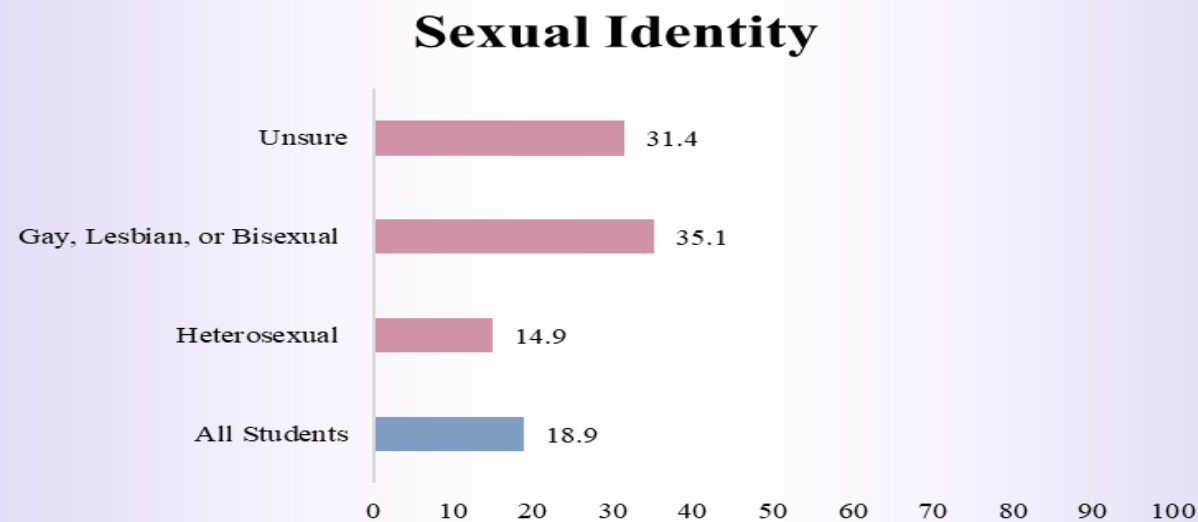
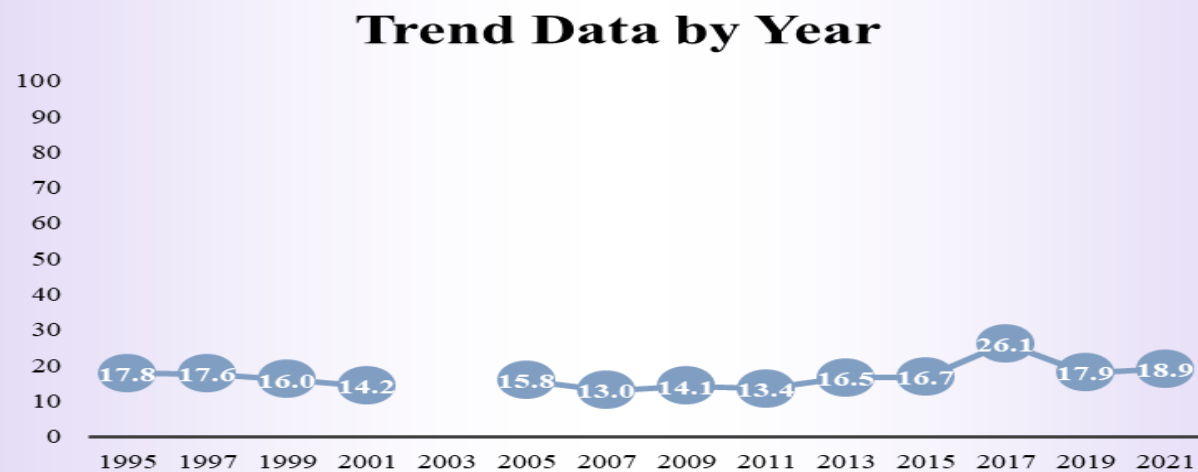
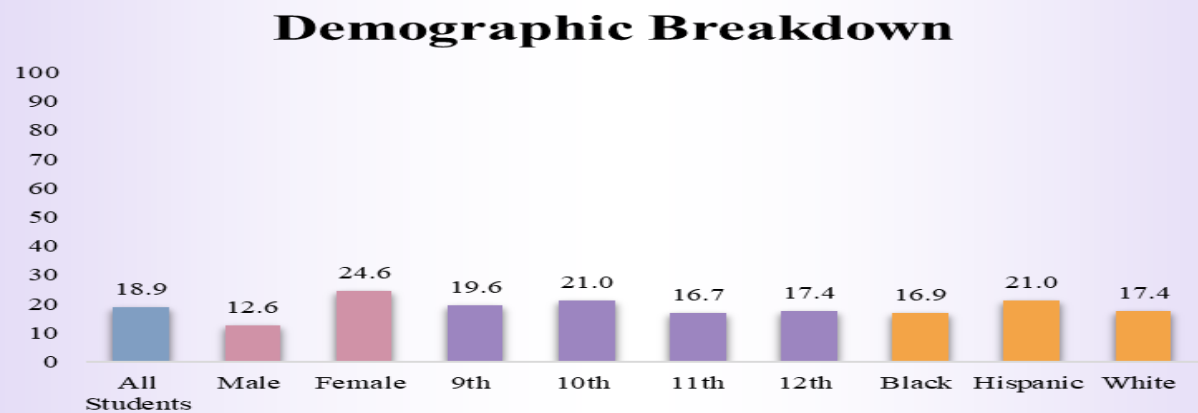


Sexual Identity



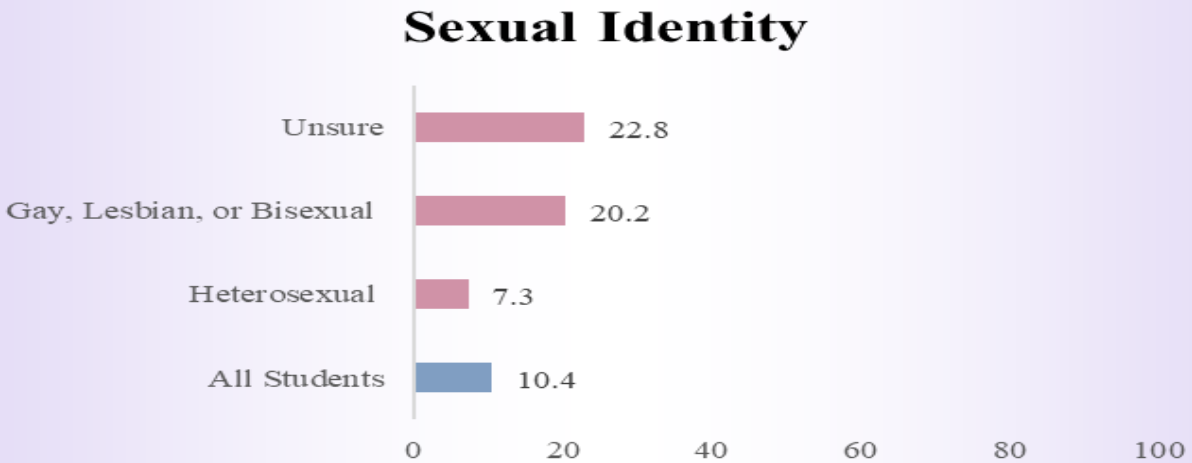
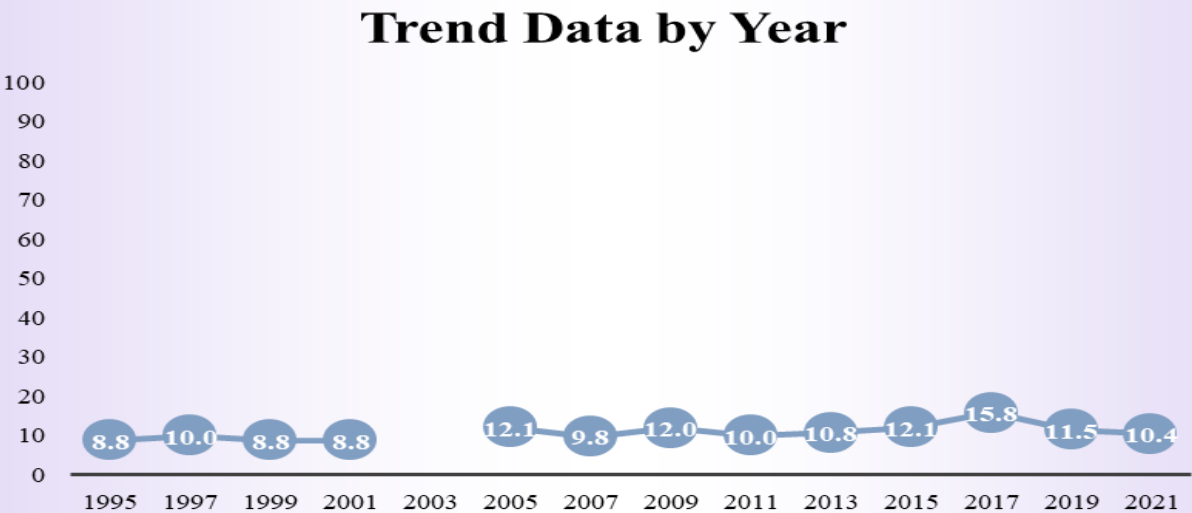
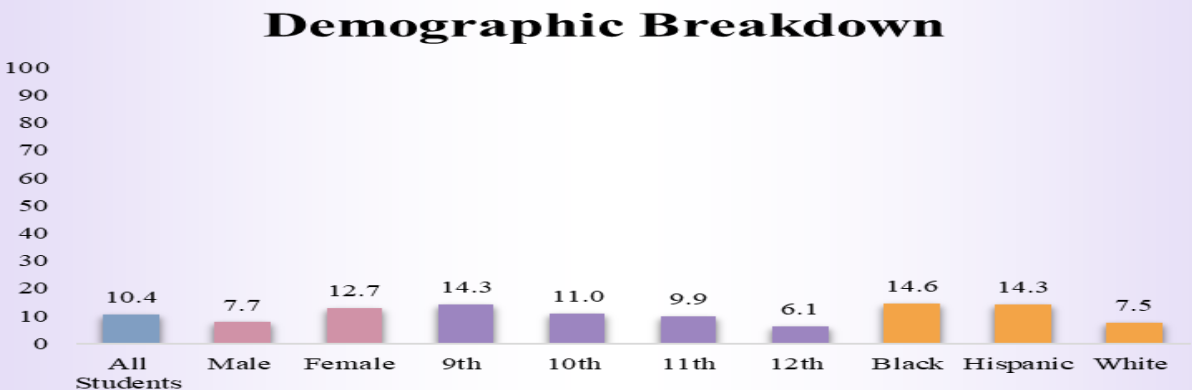
Made a Suicide Plan

During the past 12 months, 18.9 percent of students made a plan about how they would attempt suicide.



Attempted Suicide

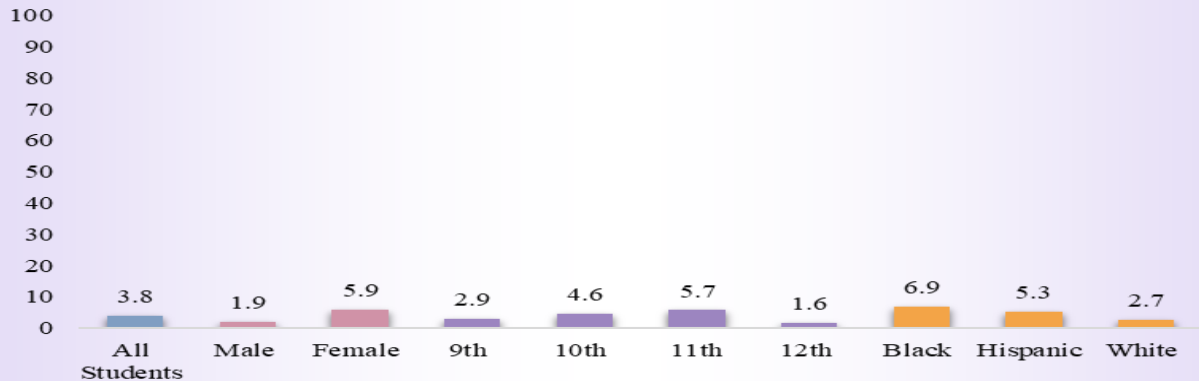
During the past 12 months, 10.4 percent of students actually attempted suicide one or more times.



## Suicide Attempt Treated by a Doctor or Nurse

Among students who attempted suicide during the past 12 months, 3.8 percent had resulted in an injury, poisoning, or overdose that had to be treated by a doctor

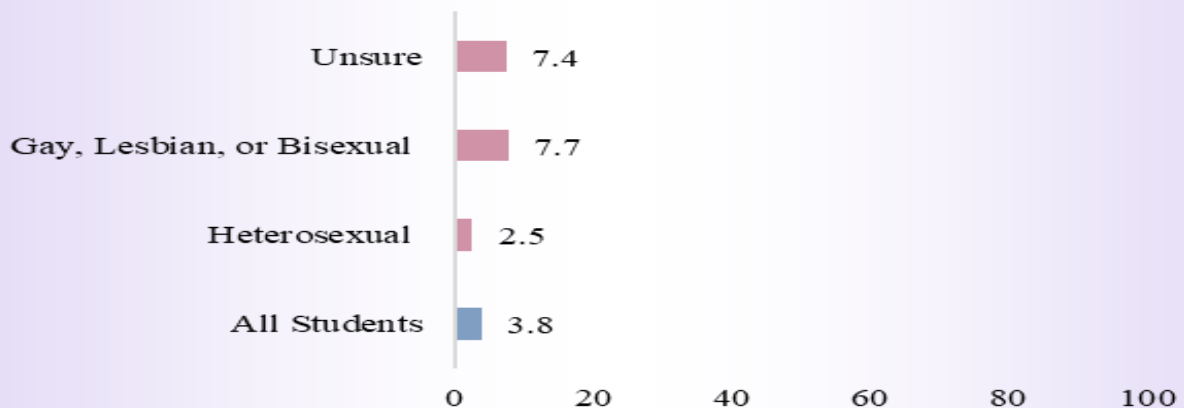
### Demographic Breakdown



### Trend Data by Year

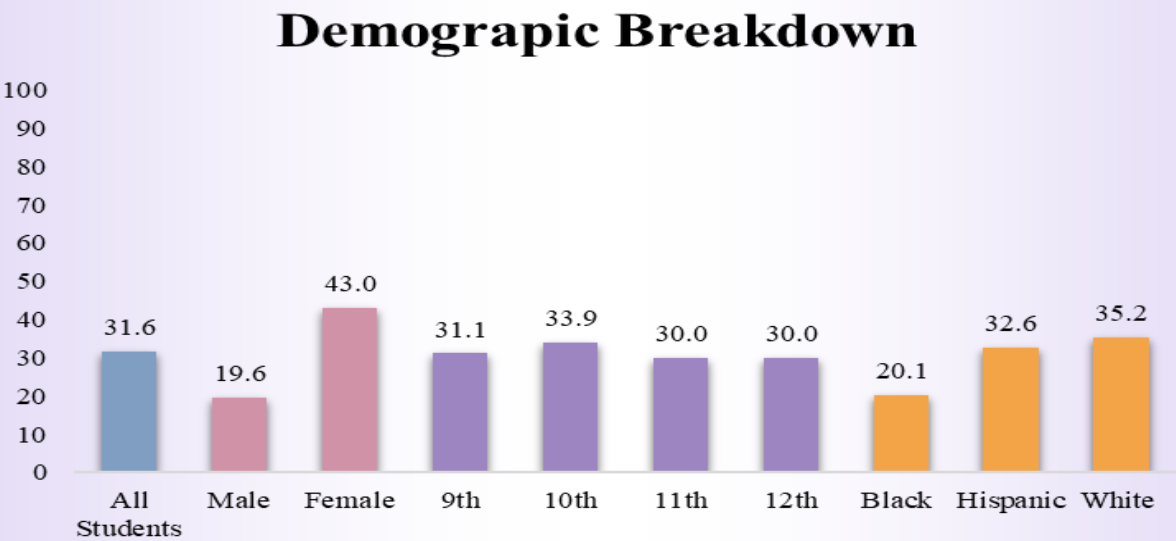


### Sexual Identity



Current Mental Health Status

Statewide, 31.6 percent of students reported that their mental health was most of the time not good or always not good during the past 30 days.



## **Tobacco Use: Cigarette Smoking**

### **QUESTIONS:**

- 34. Have you ever tried cigarette smoking, even one or two puffs?
- 35. How old were you when you first tried cigarette smoking, even one or two puffs?
- 36. During the past 30 days, on how many days did you smoke cigarettes?
- 37. During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?
- 38. During the past 30 days, how did you usually get your own cigarettes?

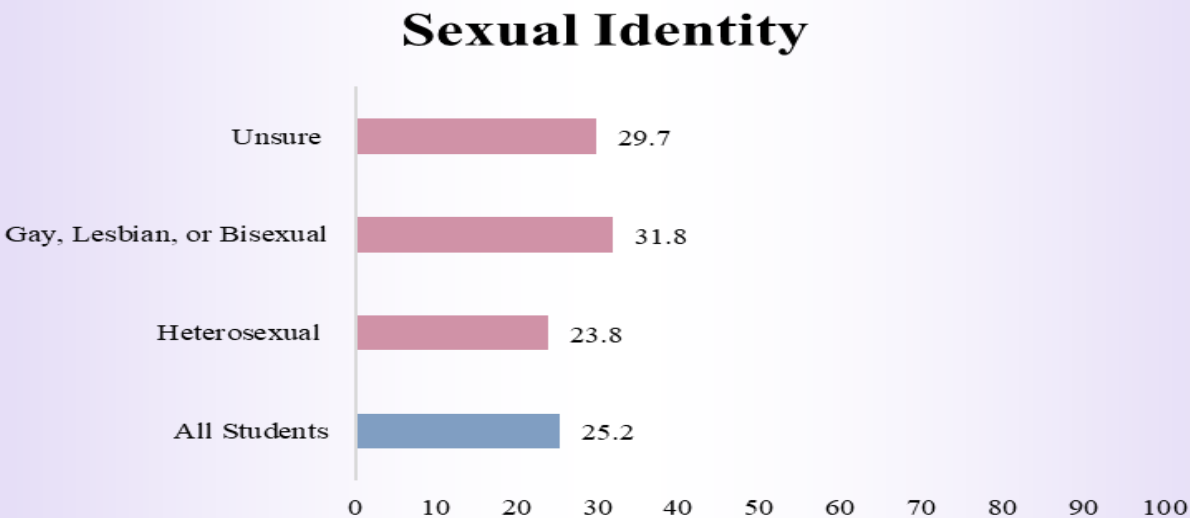
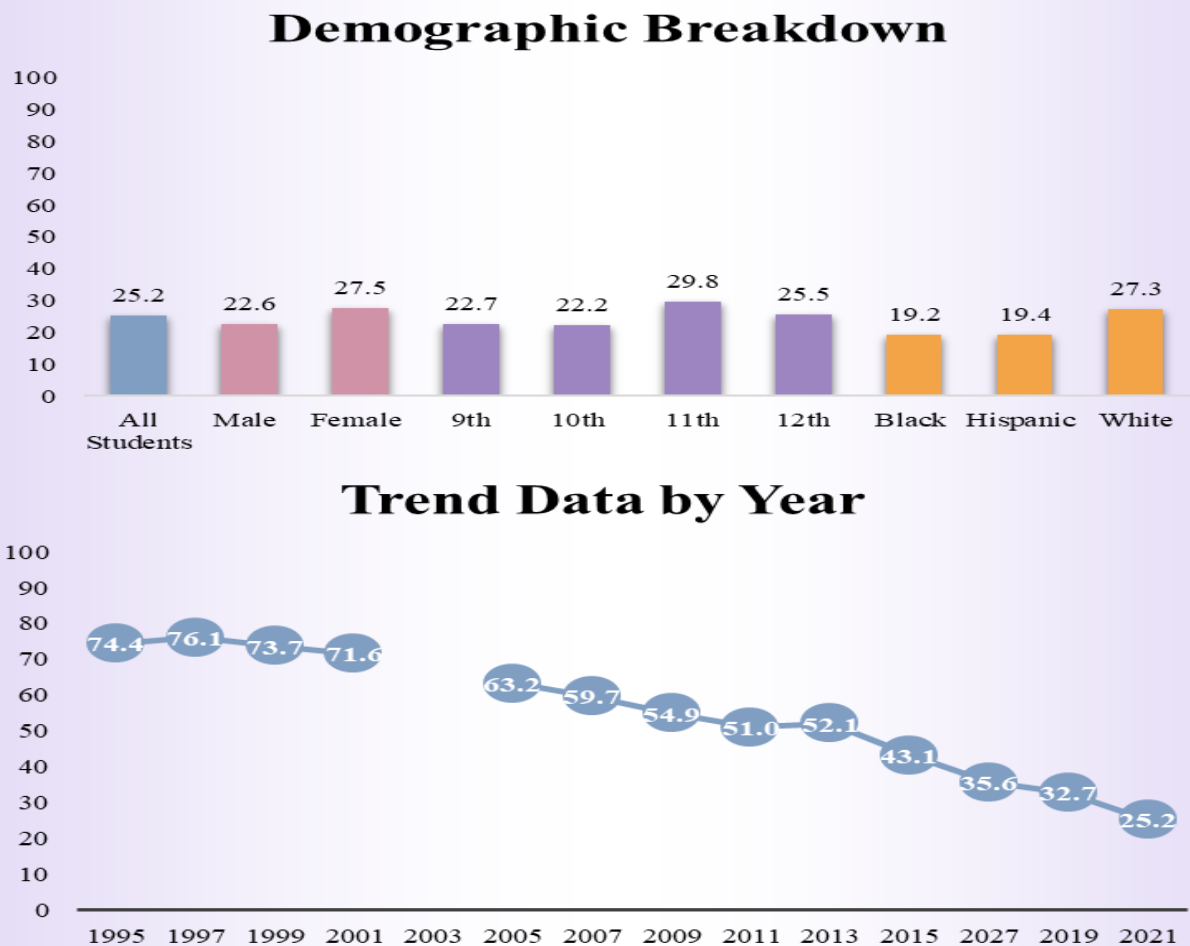
### **RATIONALE:**

These questions measure lifetime and current smoking patterns, and age of initiation. Cigarette smoking is the leading cause of preventable death in the United States(61) and accounts for approximately 440,000 deaths each year.(61,62) Each day across the United States more than 3,800 youth under 18 years of age start smoking and more than 80% of adult smokers begin before the age of 18.(63) Cigarette smoking increases risk of heart disease; chronic obstructive pulmonary disease; acute respiratory illness; stroke; and cancers of the lung, larynx, oral cavity, pharynx, pancreas, and cervix.(61,63) In addition, as compared to nonsmokers, cigarette smokers are more likely to drink alcohol, use marijuana and cocaine, engage in risky sexual behaviors, engage in physical fighting, carry a weapon, and attempt suicide.(63–64) Among high school students nationwide in 2019, 24% had ever tried cigarette smoking and 6% had smoked cigarettes on at least 1 day during the 30 days before the survey.(65) The percentage of high school students who had ever tried cigarette smoking did not change during 1991–1999 and then decreased significantly during 1999–2019 (70%–24%).(65,66) The percentage of high school students who had smoked cigarettes on at least 1 day during the 30 days before the survey increased significantly during 1991–1997 (28%–36%) and then drastically decreased during 1997–2019 (36%–6%).(5,6)



### Tried Cigarette Smoking

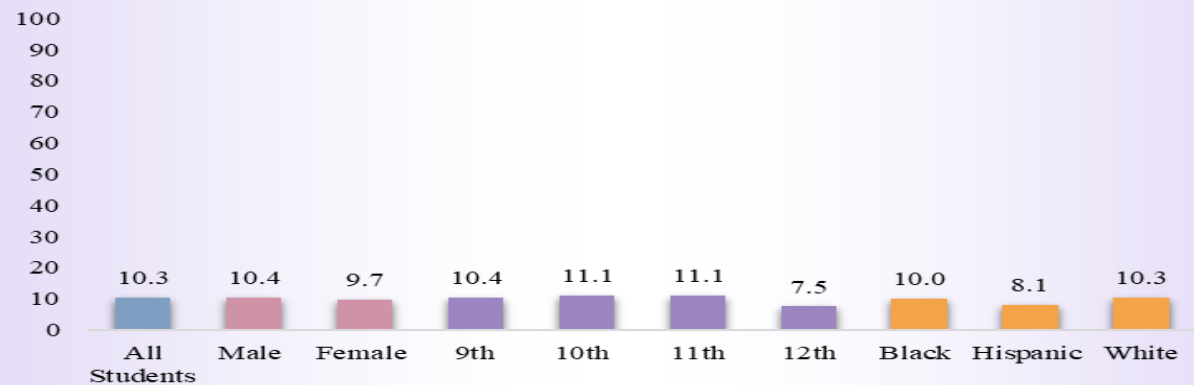
Statewide, 25.2 percent of students tried cigarette smoking, even one or two puffs.



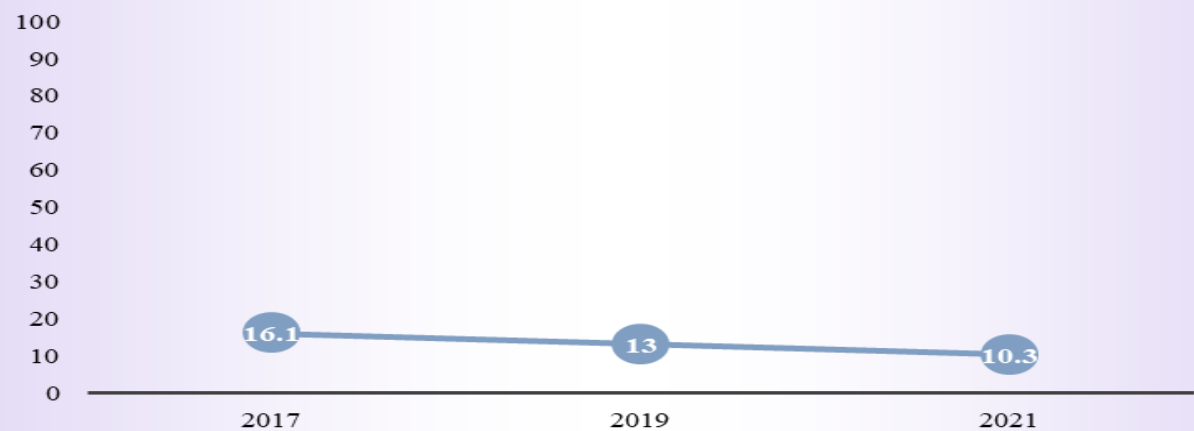
**Smoked Cigarettes Before the Age 13**

Statewide, 10.3 percent of students smoked one or two puffs from a cigarette before the age 13.

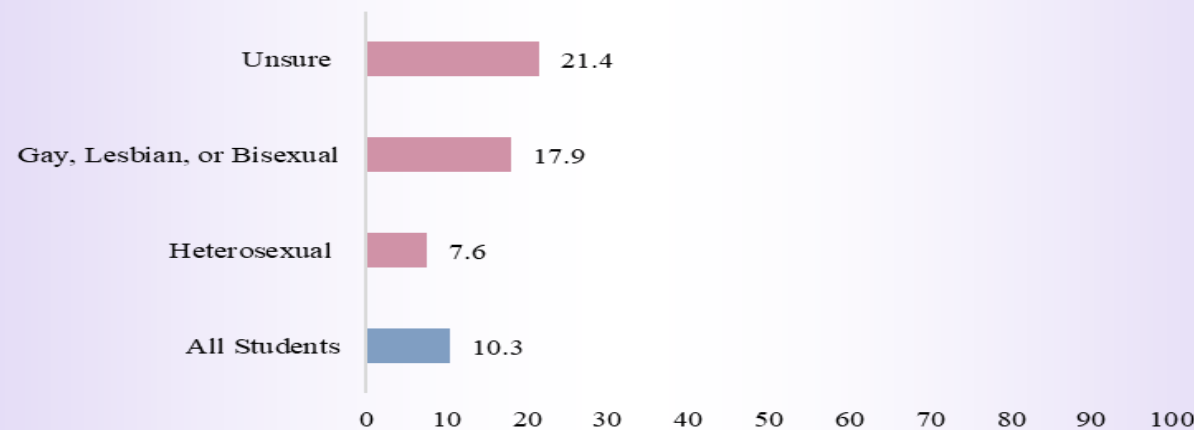
**Demographic Breakdown**



**Trend by Data Year**



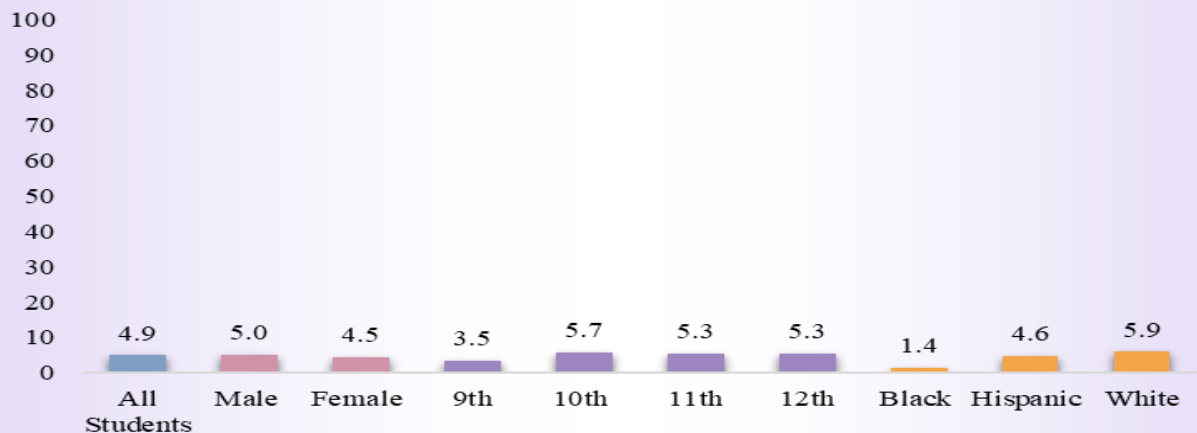
**Sexual Identity**



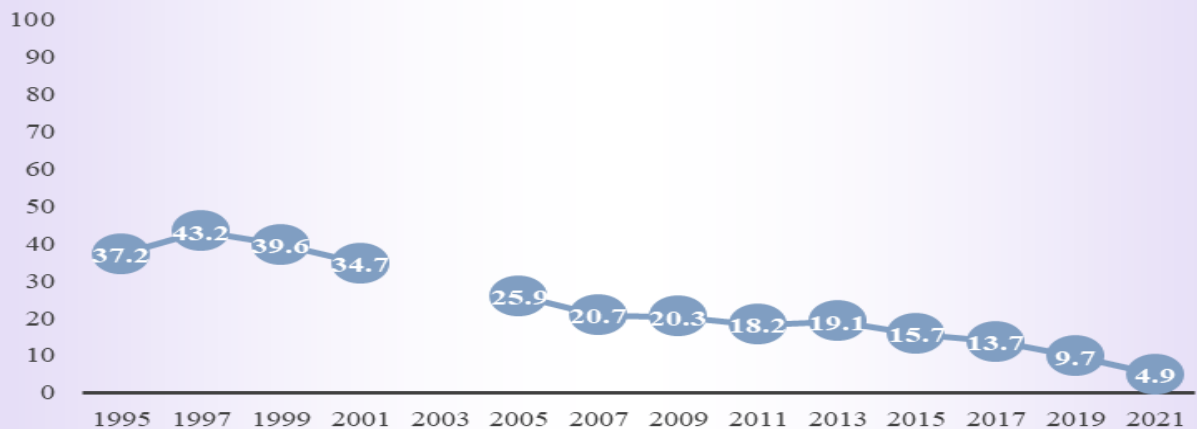
Current Cigarette Use

During the past 30 days, 4.9 percent of Arkansas students had smoked cigarettes.

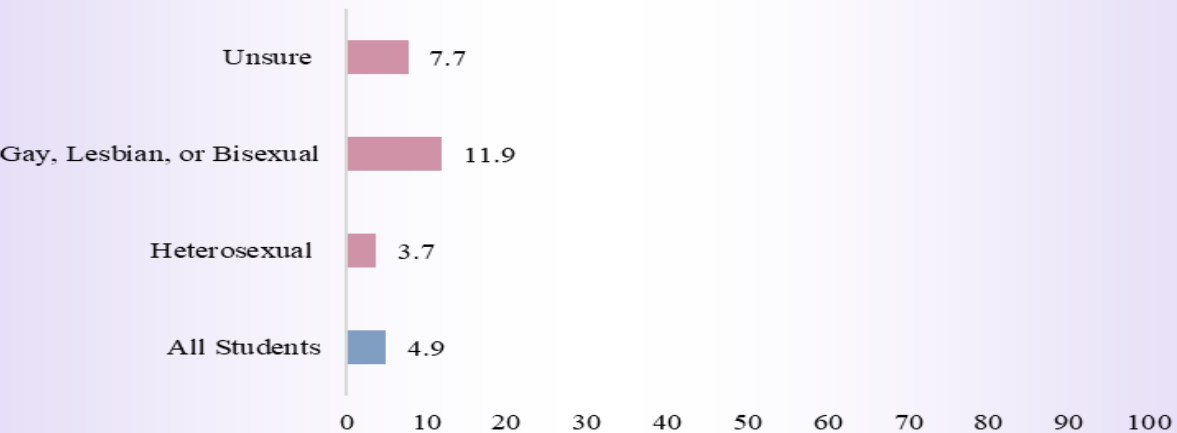
Demographic Breakdown



Trend by Data Year

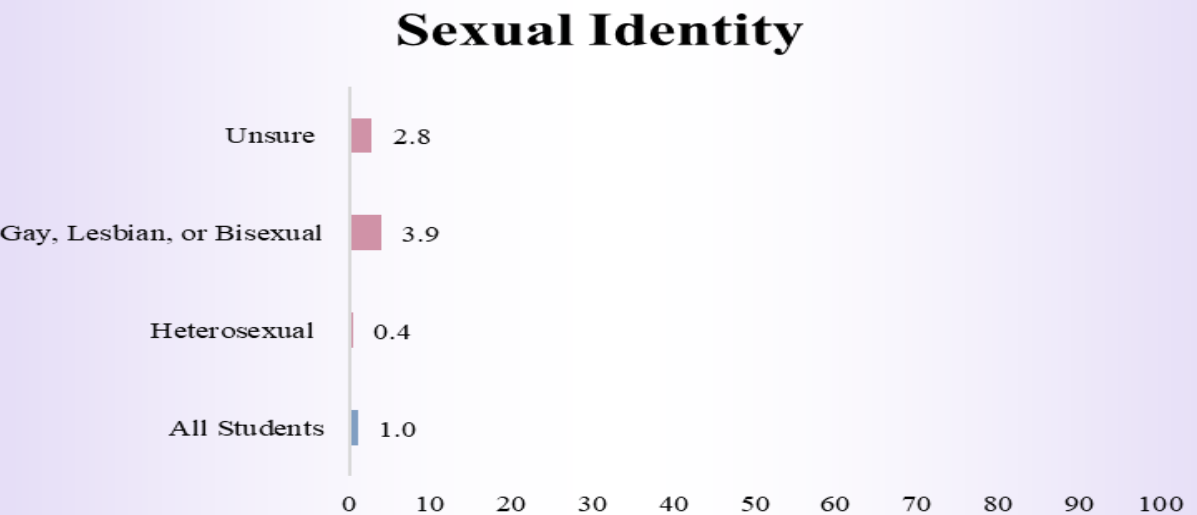
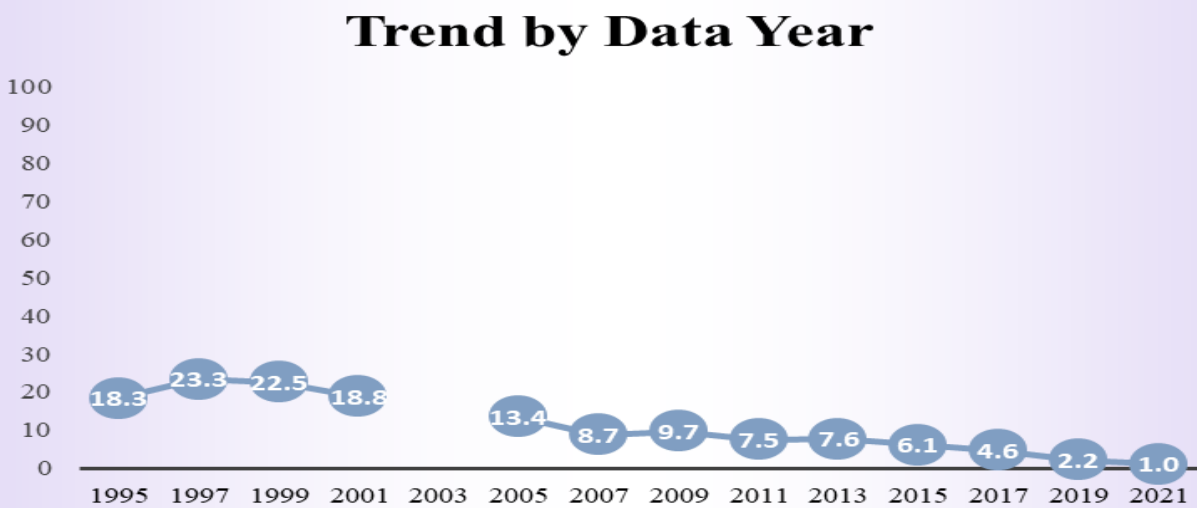
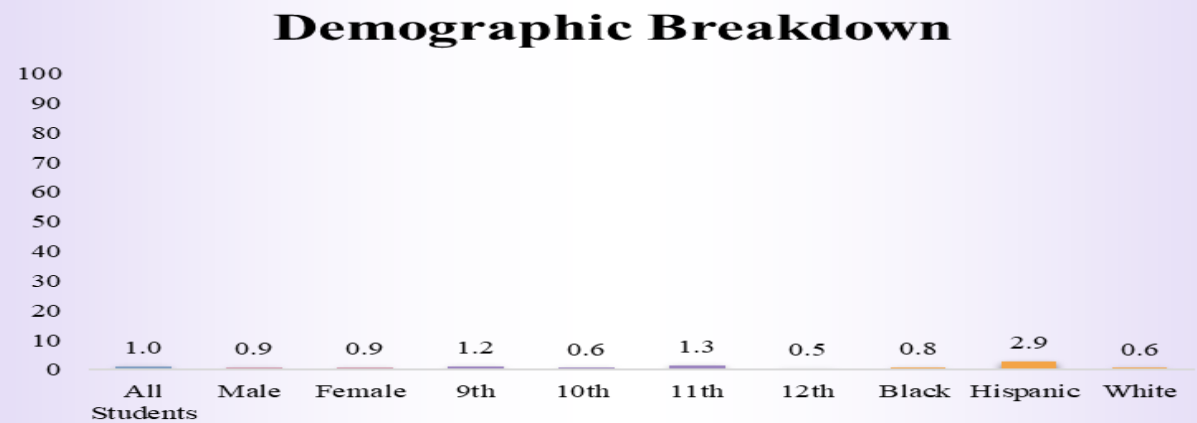


Sexual Identity



Frequent Cigarette

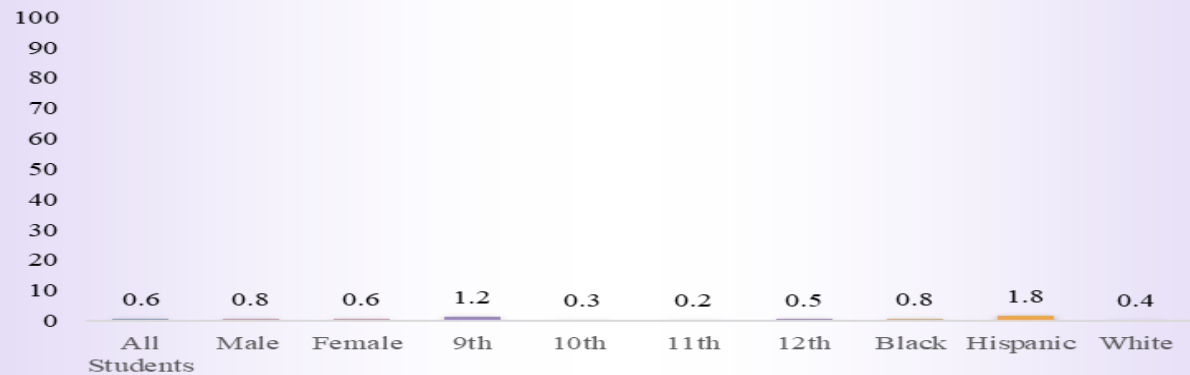
Statewide, 1.0 percent of students smoked cigarettes on 20 or more of the past 30 days.



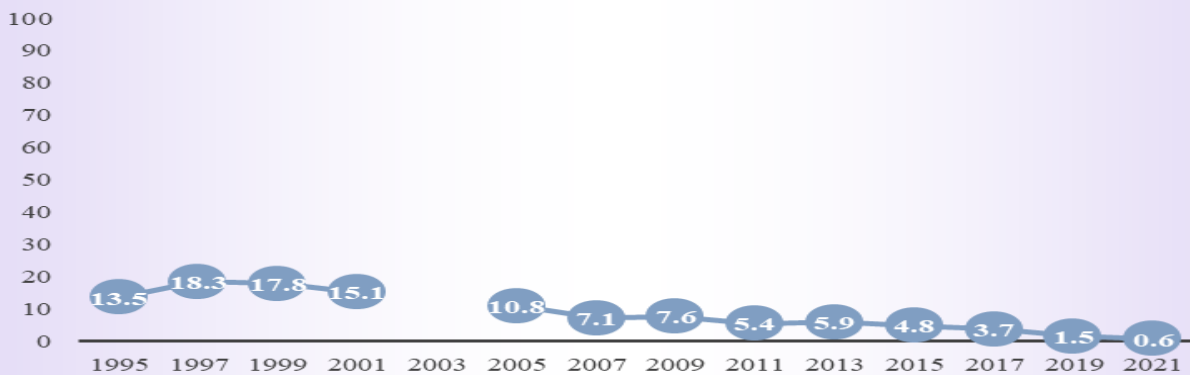
Currently Smoked Cigarettes Daily

Statewide, 0.6 percent of students smoked a cigarette on each of the past 30 days.

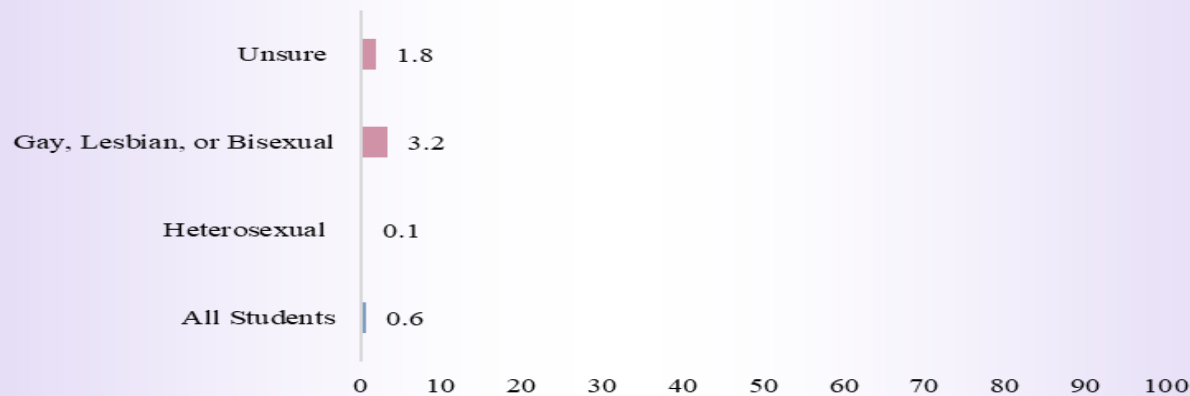
Demographic Breakdown



Trend Data by Year



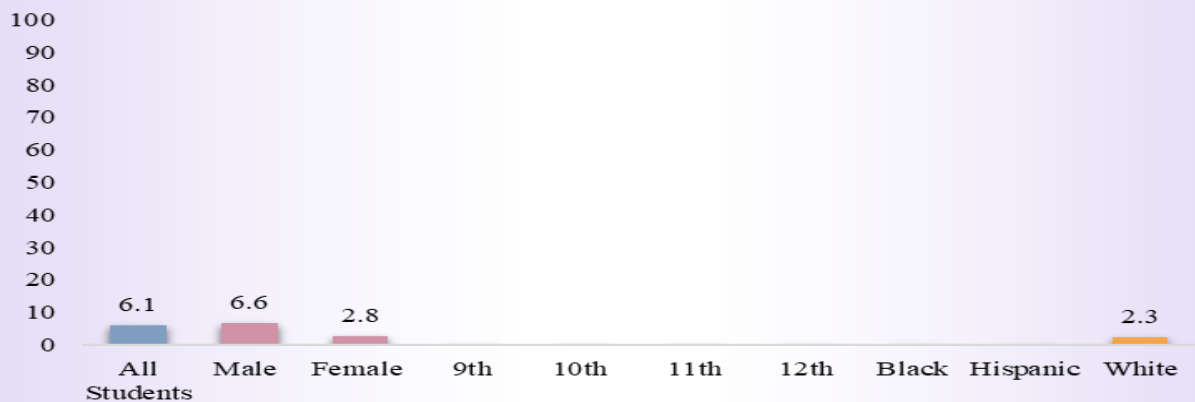
Sexual Identity



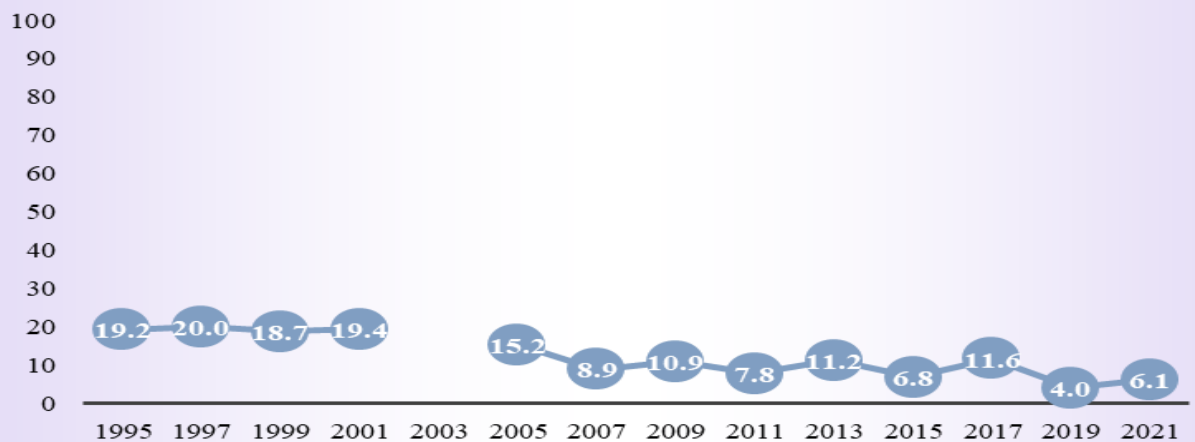
Smoked More Than 10 Cigarettes Per Day

Among students that reported current cigarette use, 6.1 percent smoked more than 10 cigarettes per day on the days they smoked during the past 30 days.

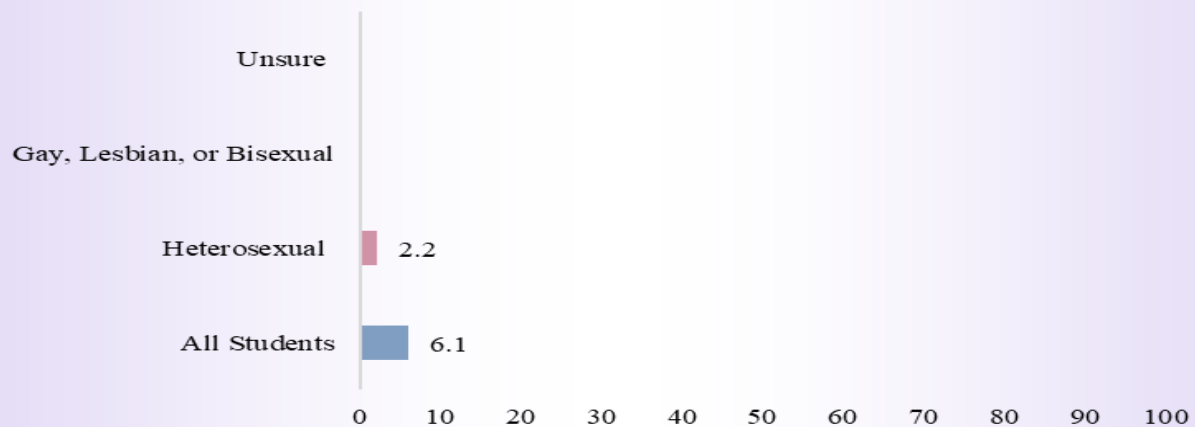
Demographic Breakdown



Trend Data by Year



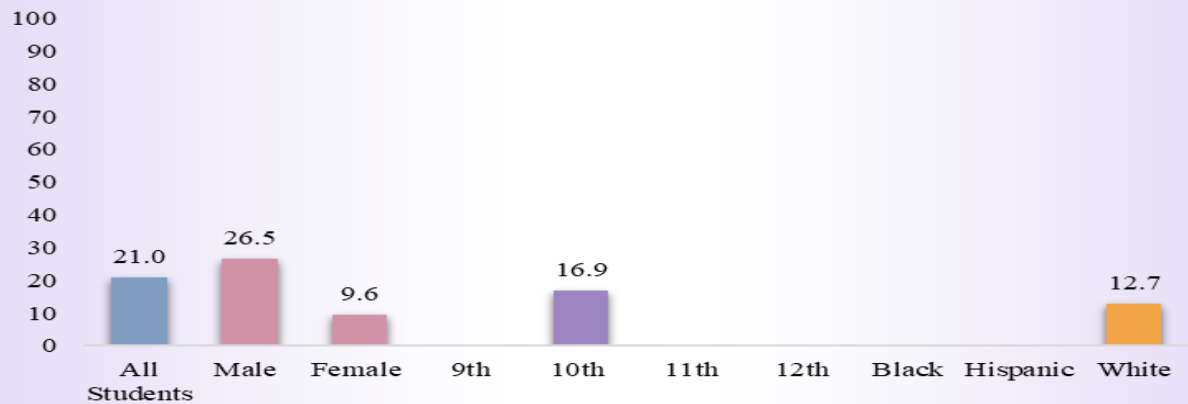
Sexual Identity



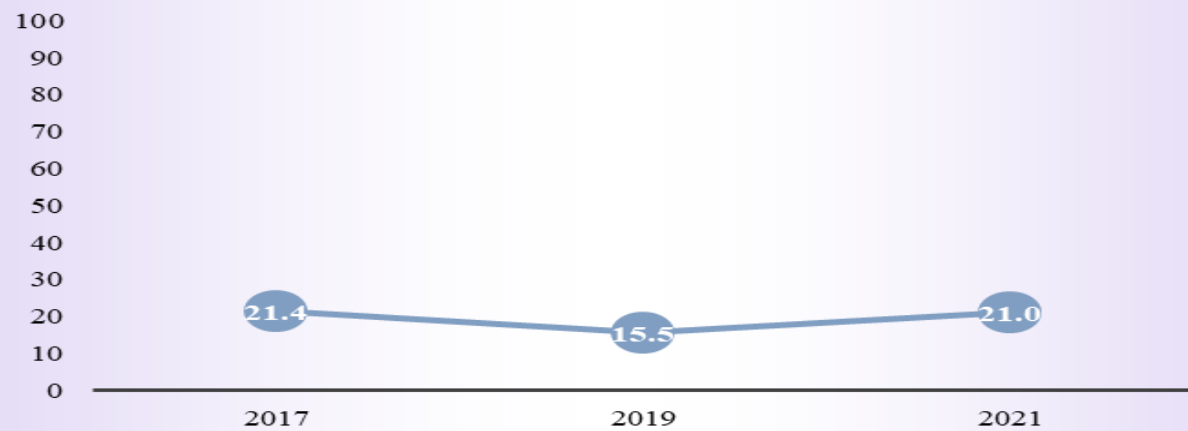
Access to Cigarettes

Statewide, 21.0 percent of students obtained their own cigarettes by purchasing them in a store or gas station.

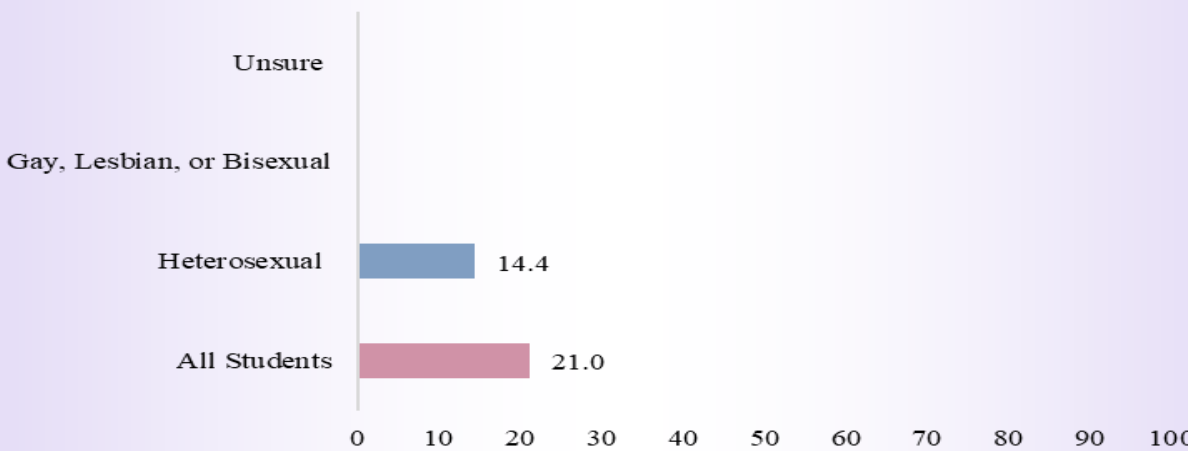
Demographic Breakdown



Trend Data by Year



Sexual Identity



## **Tobacco Use: Vapor Products**

### **QUESTIONS:**

- 39. Have you ever used an electronic vapor product?
- 40. During the past 30 days, on how many days did you use an electronic vapor product?
- 41. During the past 30 days, how did you usually get your own electronic vapor products?

### **RATIONALE:**

These questions measure the prevalence of use of electronic vapor products and access to these products. Electronic vapor products are battery-powered electronic devices that usually contain a nicotine-based liquid that is vaporized and inhaled by the user.(67) Electronic vapor products come in many shapes and sizes, and may be shaped like cigarettes or other tobacco products, USB devices, pen-shaped devices, or tank-style devices. Electronic vapor products include electronic cigarettes (e-cigarettes), vapes, vape pens, electronic cigars (e-cigars), electronic hookahs (e-hookahs), hookah pens, and mods. Depending on the brand, e-cigarette cartridges or refillable e-liquids typically contain nicotine, a component to produce the aerosol (e.g., propylene glycol or glycerol), and flavorings (e.g., fruit, mint, or chocolate).(68)

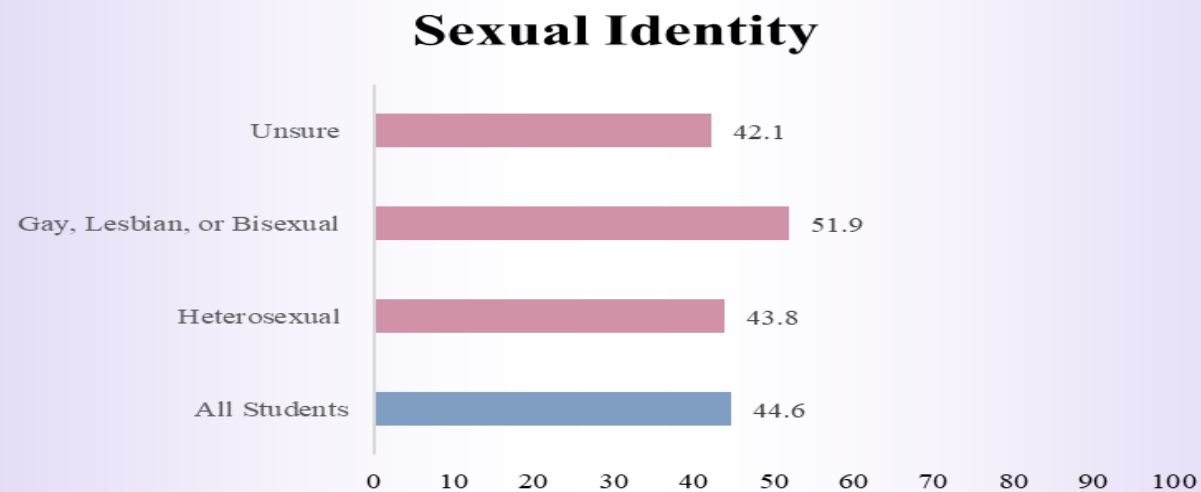
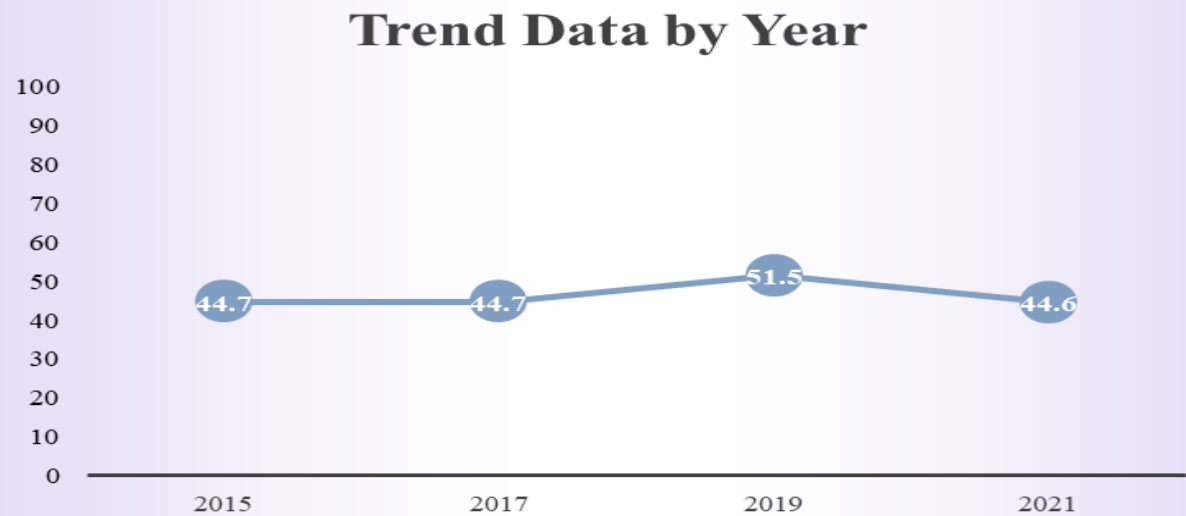
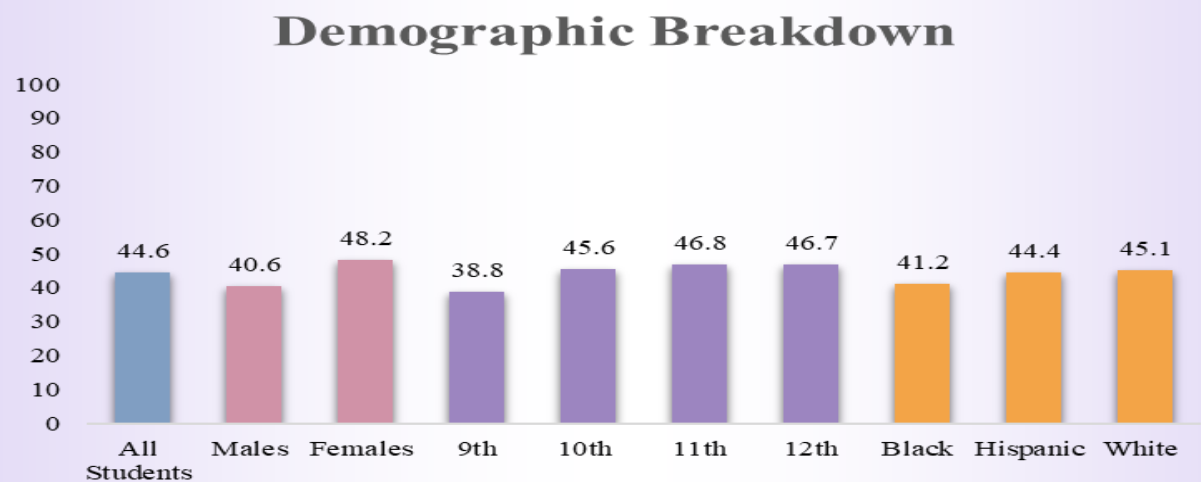
According to the National Youth Tobacco Survey, e-cigarettes have remained the most commonly used tobacco product among high school students since 2014.(69) Recognizing this as a key component of youth tobacco product use surveillance, the YRBS has assessed the use of electronic vapor products since 2015.(70) Among high school students nationwide in 2019, 50% had ever tried electronic vapor products and 33% of high school students had used electronic vapor products on at least 1 day during the 30 days before the survey. From 2017-2019, a significant increase was found in current use of electronic vapor products (13%-33%).(71)

In 2016, the U.S. Food and Drug Administration finalized a rule to regulate e-cigarettes and other electronic vapor products as tobacco products.(72) This rule prevented sales to minors, prohibited samples, prohibited vending machine sales (unless in a facility that never admits minors), and mandates warning labels on packaging.(72) On December 20, 2019, legislation amended the Federal Food, Drug, and Cosmetic Act and raised the federal minimum age of sale of tobacco products from 18 to 21 years of age.(73) Given this evolving landscape, continued monitoring of how youth usually get their e-cigarettes will be important to inform surveillance and evaluation efforts in identifying potential shifts in youth e-cigarette access patterns. The question assessing access to electronic vapor products was revised for 2021 to provide a more distinct response option for social sources inclusive of both paid and unpaid means of obtaining e-cigarettes.



Electronic Vapor Product Use

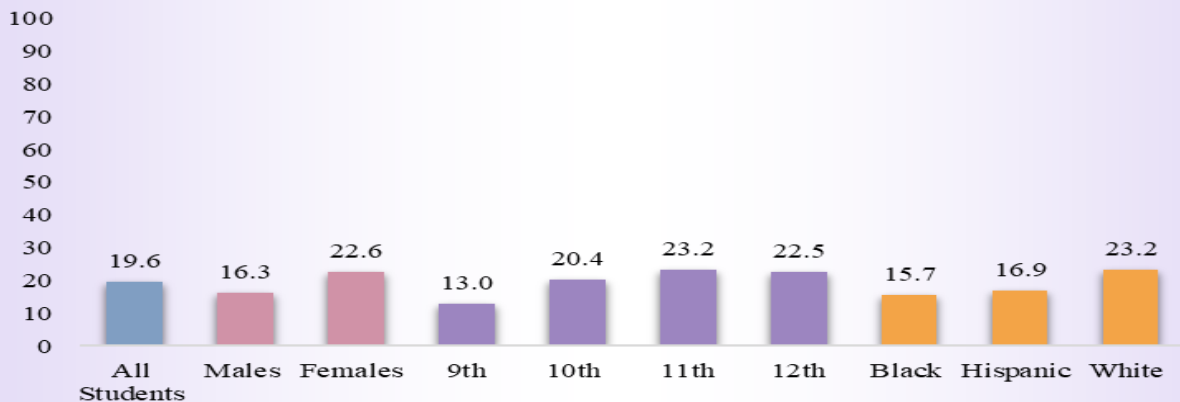
Statewide, 44.6 percent of students had tried an electronic vapor product.



Currently Electronic Vapor Product Use

Statewide, 19.6 percent of students used an electronic vapor product at least on one day during the past 30 days.

Demographic Breakdown



Trend Data by Year

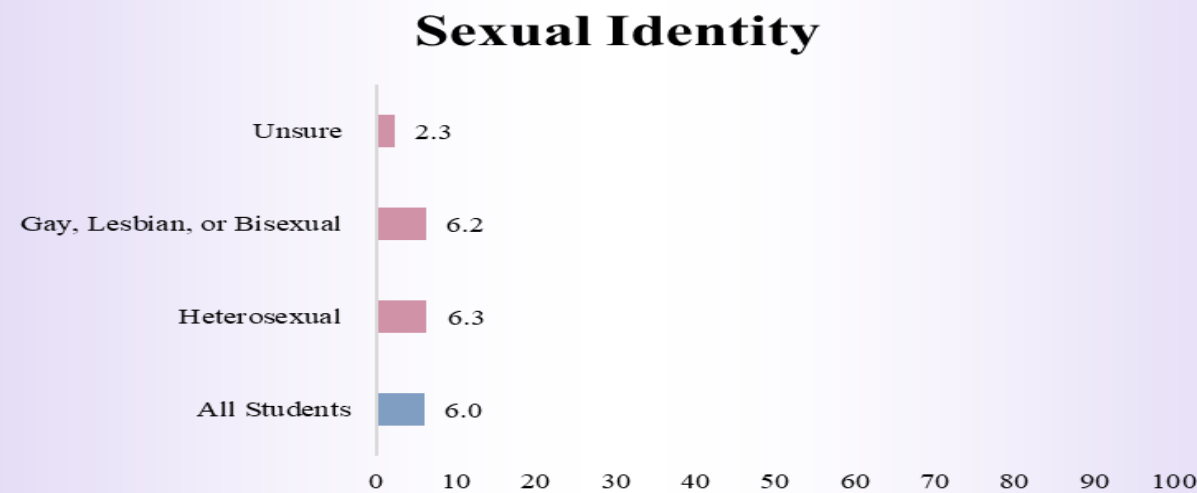
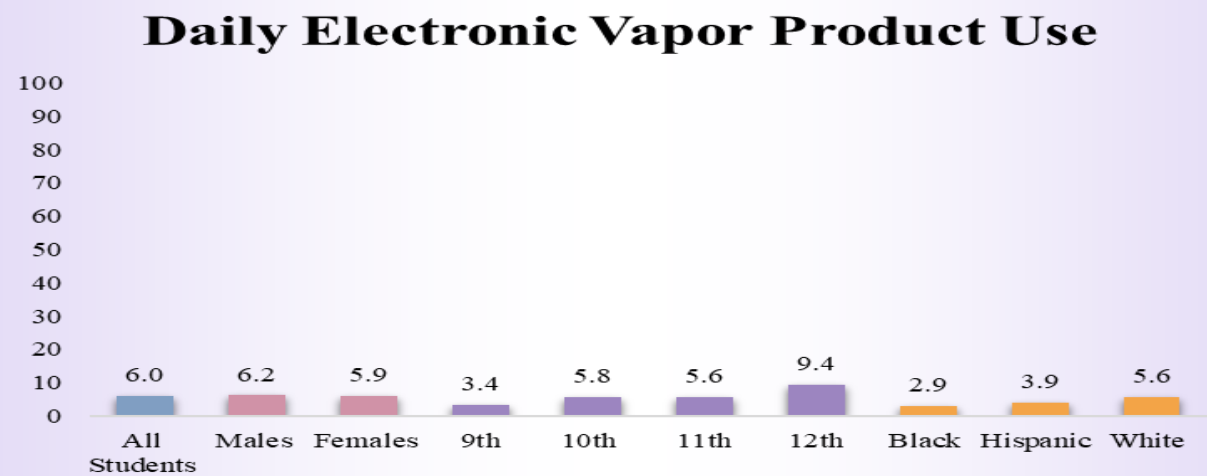


Sexual Identity



Daily Electronic Vapor Product Use

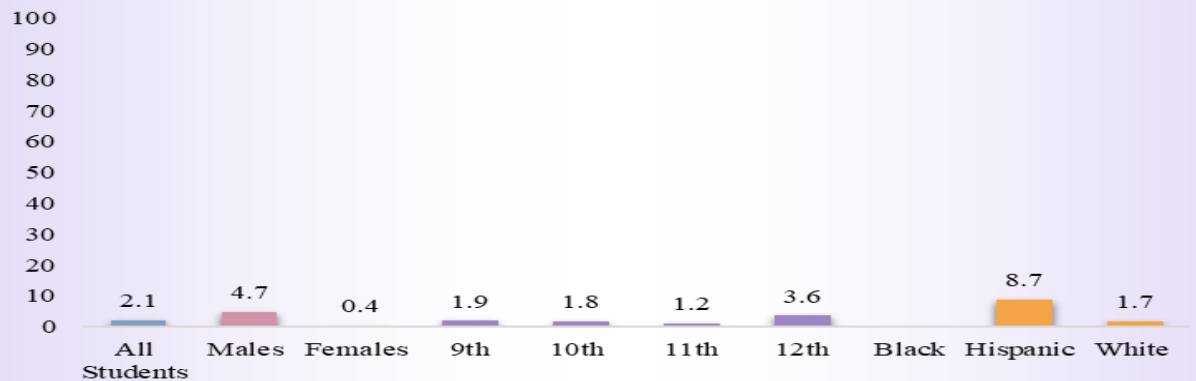
Statewide, 6 percent of students used an electronic vapor product on all of the past 30 days.



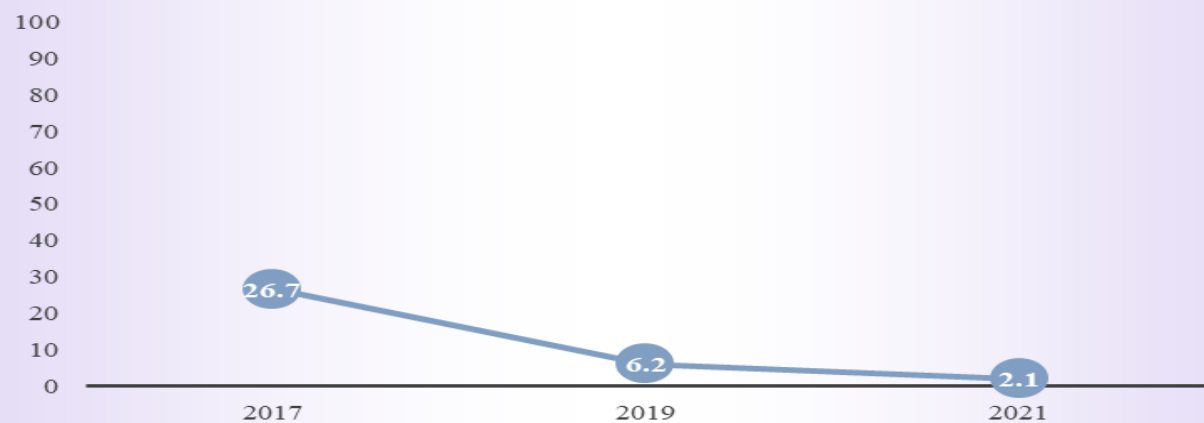
Access to Electronic Vapor Products

Among students who used electronic vapor products during the past 30 days, 2.1 percent usually get their own electronic vapor products by buying them at convenience store, super market, discount store, or gas station.

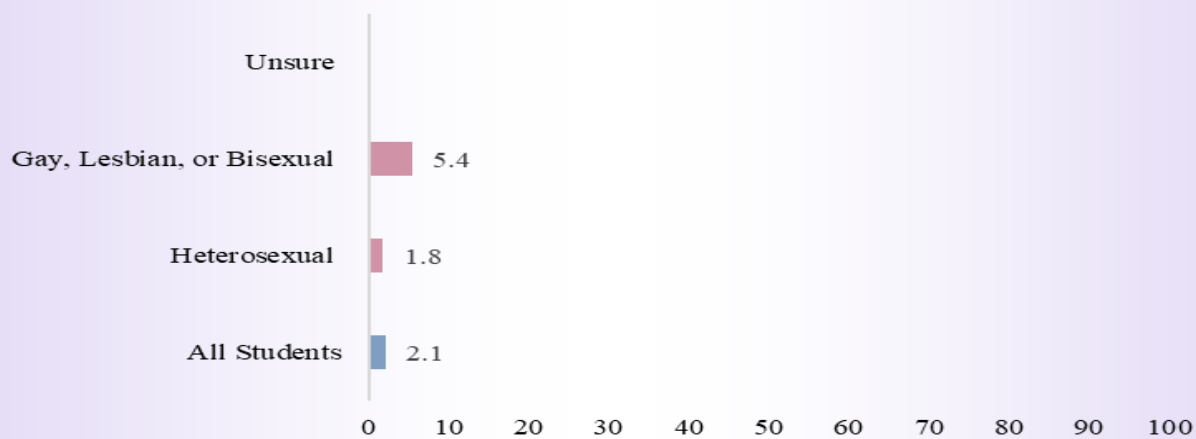
Demographic Breakdown



Trend Data by Year



Sexual Identity



## **Tobacco Use: Other Tobacco Products**

### **QUESTIONS:**

42. During the past 30 days, on how many days did you use chewing tobacco, snuff, dip, snus, or dissolvable tobacco products, such as Copenhagen, Grizzly, Skoal, or Camel Snus? (Do not count any electronic vapor products.)

43. During the past 30 days, on how many days did you smoke cigars, cigarillos, or little cigars?

### **RATIONALE:**

These questions measure smokeless tobacco use and cigar use. Smokeless tobacco products include chewing tobacco, snuff, dip, snus or dissolvable tobacco products.(74) The smokeless tobacco brands provided as examples reflect the most commonly used brands based on market-share data.(75) Smokeless tobacco contains 28 known human carcinogens.(74) Use of smokeless tobacco products increases the risk of developing cancer of the oral cavity.(74) Other oral health problems strongly associated with smokeless tobacco use are leukoplakia (a lesion of the soft tissue that consists of a white patch or plaque that cannot be scraped off) and recession of the gums.(74,76,77) Smokeless tobacco use also causes an increased risk of heart disease and stroke.(78) In addition, adolescent smokeless tobacco users are more likely than nonusers to become adult cigarette smokers.(77) Smokeless tobacco may appeal to youth because it can come in flavors such as mint, fruit, or spice.(77) Among high school students nationwide in 2019, 4% had used smokeless tobacco (e.g., chewing tobacco, snuff, or dip) on at least 1 day during the 30 days before the survey.(79) Smokeless tobacco use declined from 2017-2019 (from 6% to 4%). (79) Cigar smoking can cause lung cancer, coronary heart disease, and chronic obstructive pulmonary disease.(80-82) The overall risk of oral and pharyngeal cancer is 7–10 times higher among cigar smokers compared to those who never smoked.(83) In 2019, 6% of high school students nationwide had smoked cigars, cigarillos, or little cigars on at least 1 day during the 30 days before the survey; a significant decrease in overall prevalence of current cigar smoking from 2017 (8.0%). (79)

### **QUESTION:**

44. During the past 12 months, did you ever try to quit using all tobacco products, including cigarettes, cigars, smokeless tobacco, shisha or hookah tobacco, and electronic vapor products?

### **RATIONALE:**

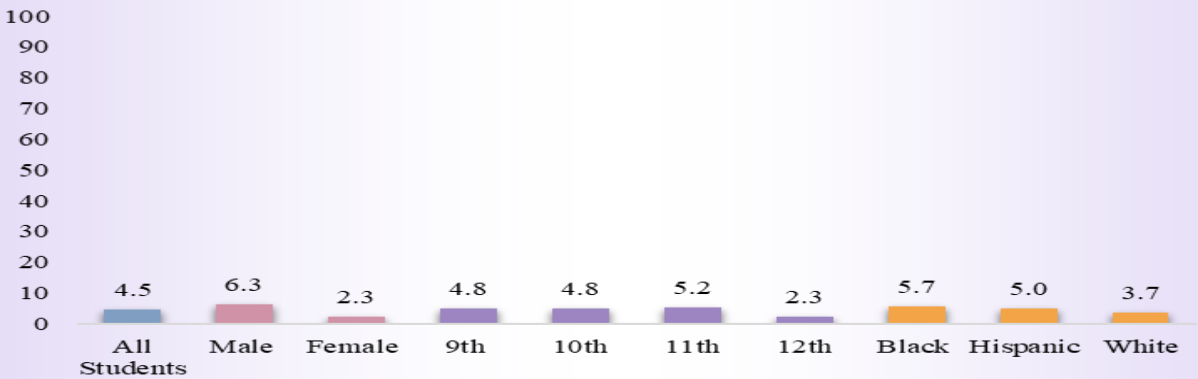
This question measures attempts to quit using all tobacco products. Nicotine exposure during adolescence, a critical period for brain development, can cause addiction, might harm brain development, and could lead to sustained tobacco product use among youths.(84,85,86) Therefore, among youth, there is no safe exposure to nicotine, be it from combustible, non-combustible, or electronic sources. Before 2017, the YRBS assessed the prevalence of high school students who attempted to quit smoking cigarettes during the 12 months before the survey.

The questionnaire item was expanded in 2017 to include all tobacco products. In 2019, among high school students nationwide who used any tobacco products during the 12 months before the survey, 48% had tried to quit using all tobacco products during those 12 months.(87)

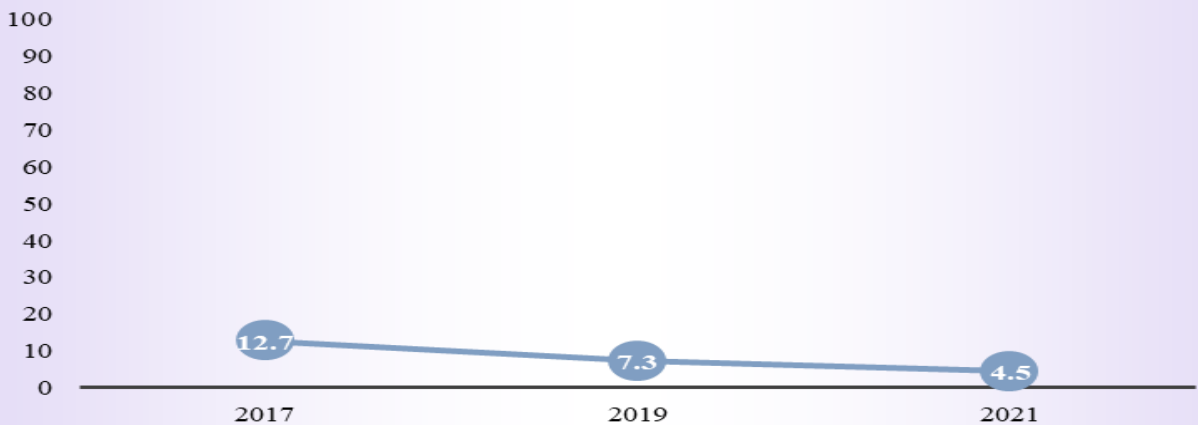
Current Smokeless Tobacco Use

During the past 30 days, 4.5 percent of high school used chewing tobacco, snuff, snus or dissolvable tobacco products (such as Camel Snus, Grizzly, or Copenhagen).

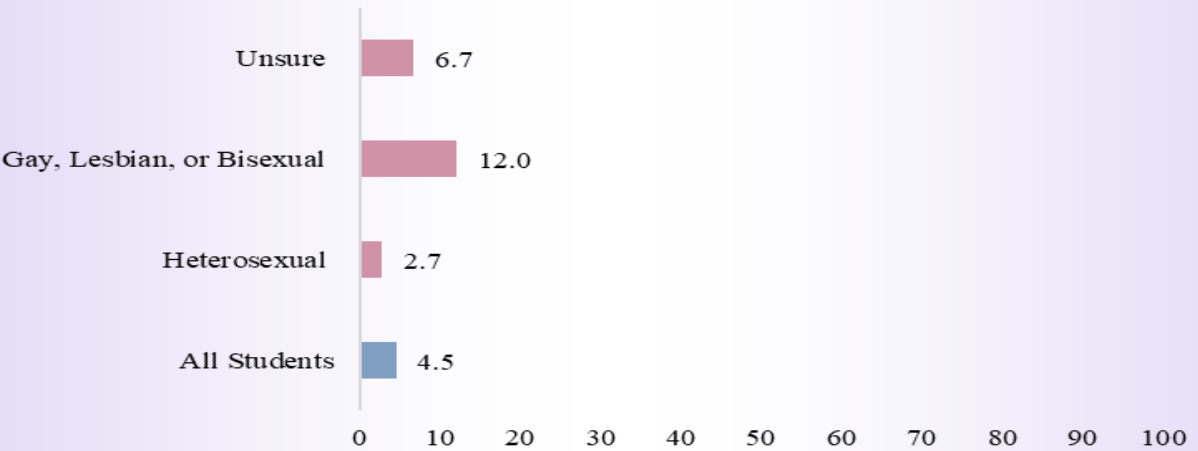
Demographic Breakdown



Trend Data by Year



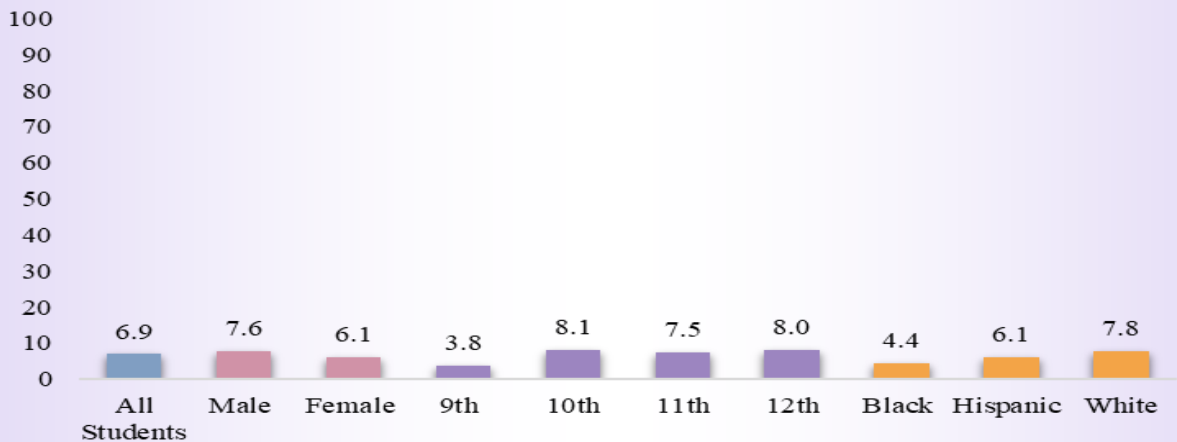
Sexual Identity



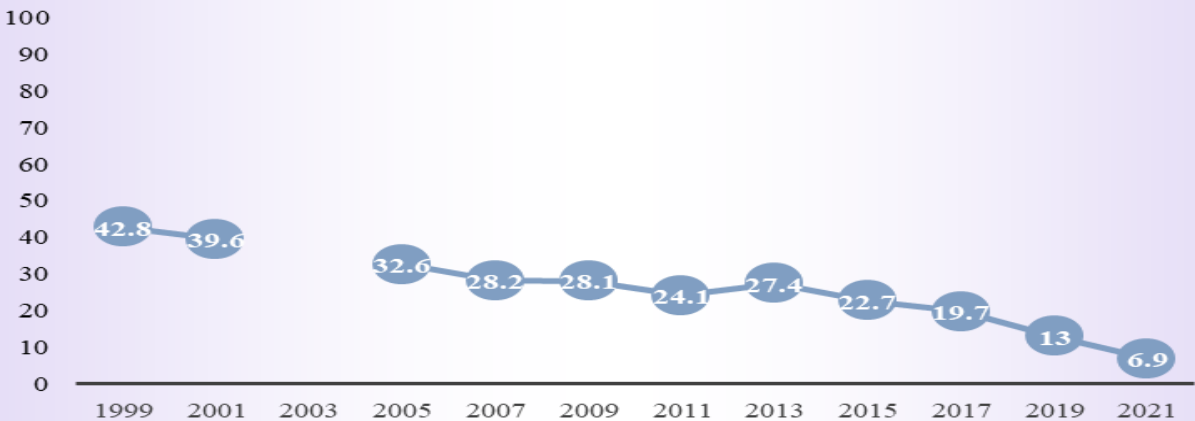
Current Cigarette or Cigar Use

During the past, 30 days 6.9 percent of Arkansas high school students had smoked cigarettes or cigars.

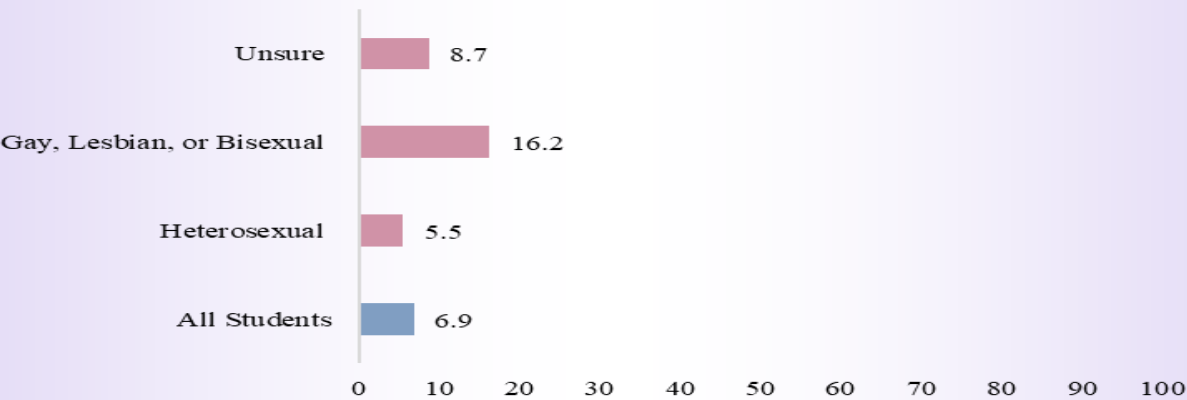
Demographic Breakdown



Trend Data by Year



Sexual Identity

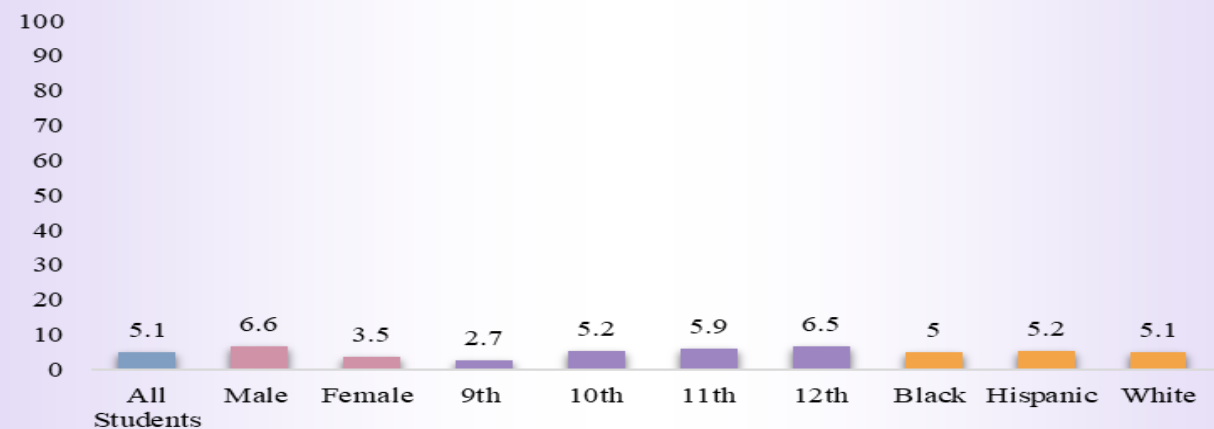




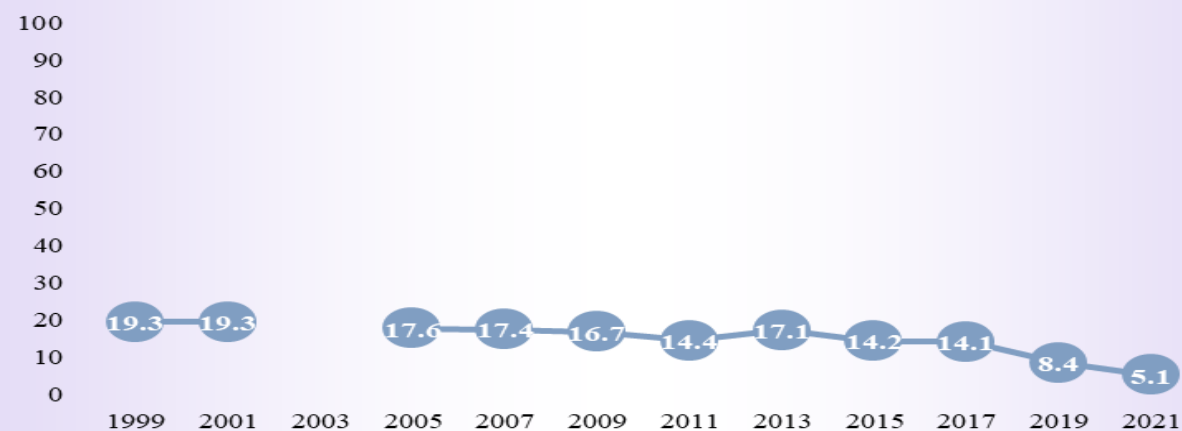
Current Cigar Use

During the past 30 days, 5.1 percent of Arkansas high school students smoked cigars, cigarillos, or little cigars.

Demographic Breakdown



Trend Data by Year

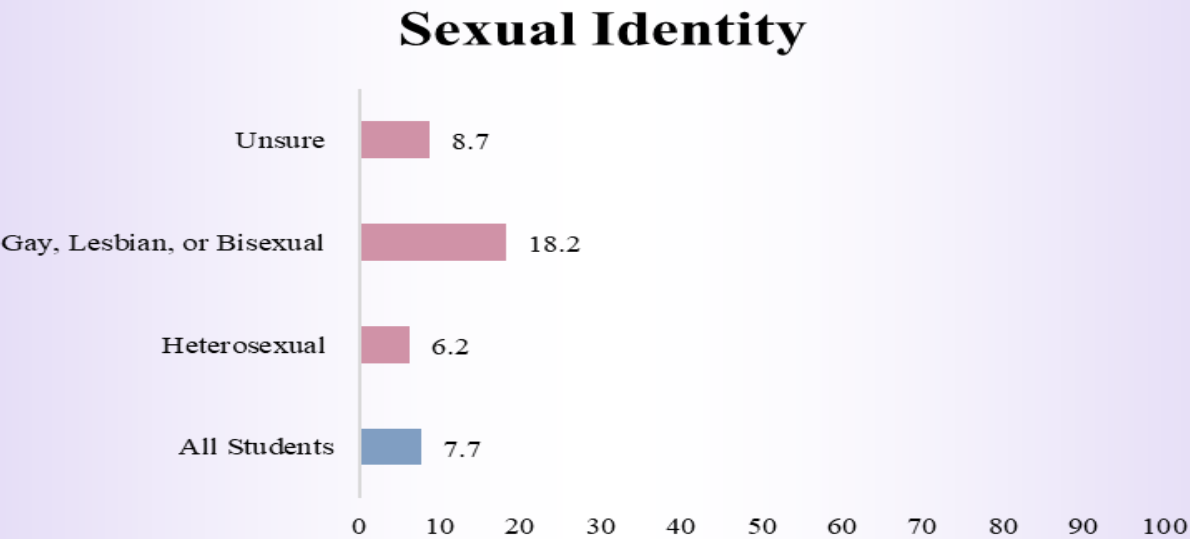
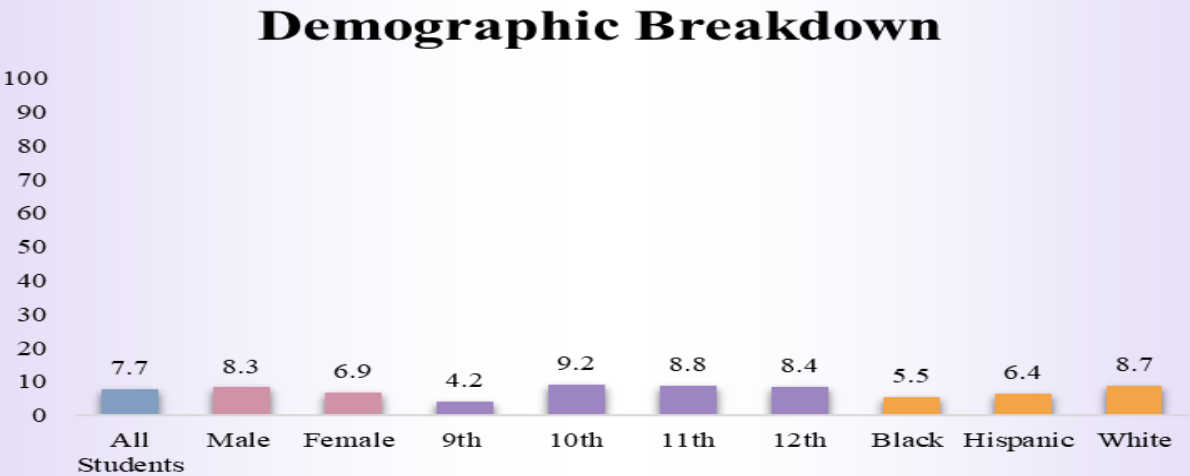


Sexual Identity



**Current Cigarette, Cigar, or Smokeless Tobacco**

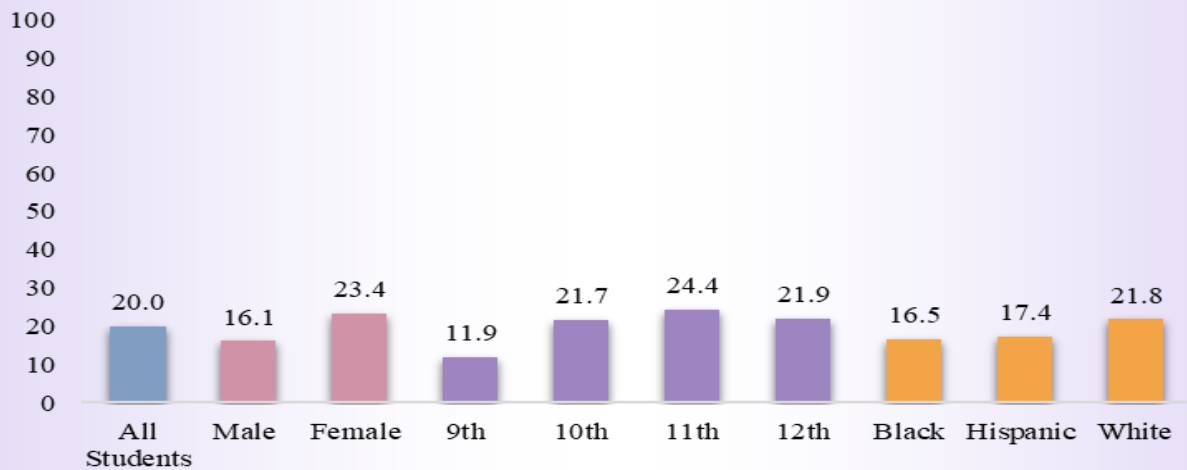
During the past 30 days, 7.7 percent of students smoked cigarettes or cigars or used smokeless tobacco.



## Current Cigarette, Cigar, Smokeless Tobacco, or Electronic Vapor Product Use

During the past 30 days, 20 percent of Arkansas high school students had smoked cigarettes or cigars or used smokeless tobacco or electronic vapor products.

### Demographic Breakdown



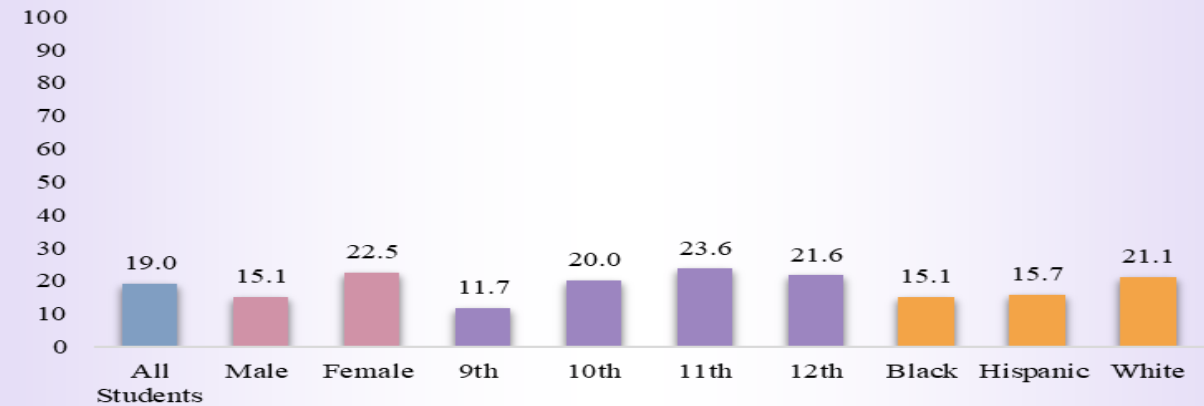
### Sexual Identity



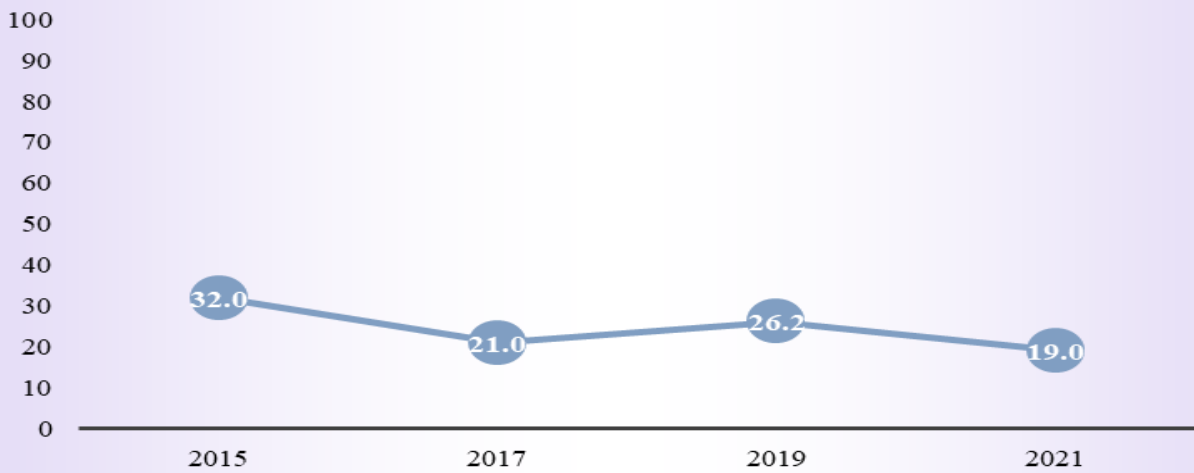
Current Cigarette or Electronic Vapor Product Use

During the past 30 days, 19 percent of students smoked cigarettes or used electronic vapor products.

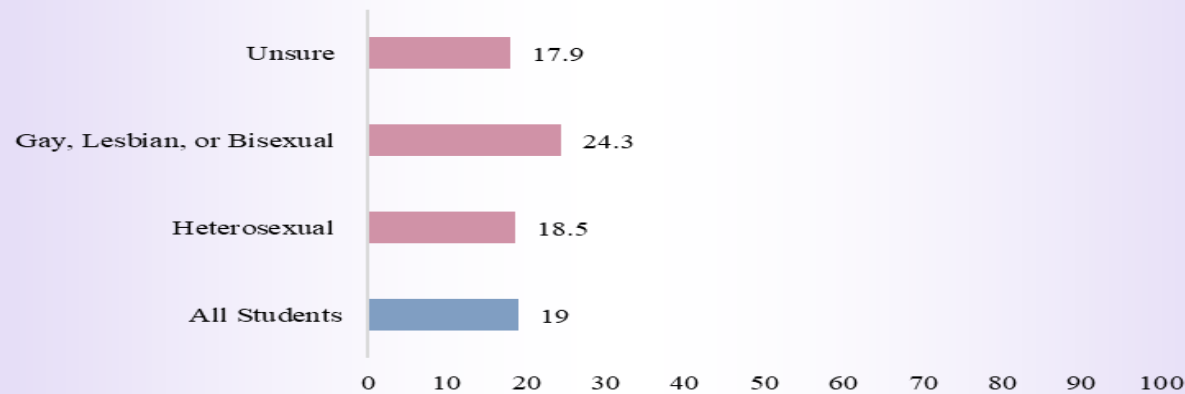
Demographic Breakdown



Trend Data by Year

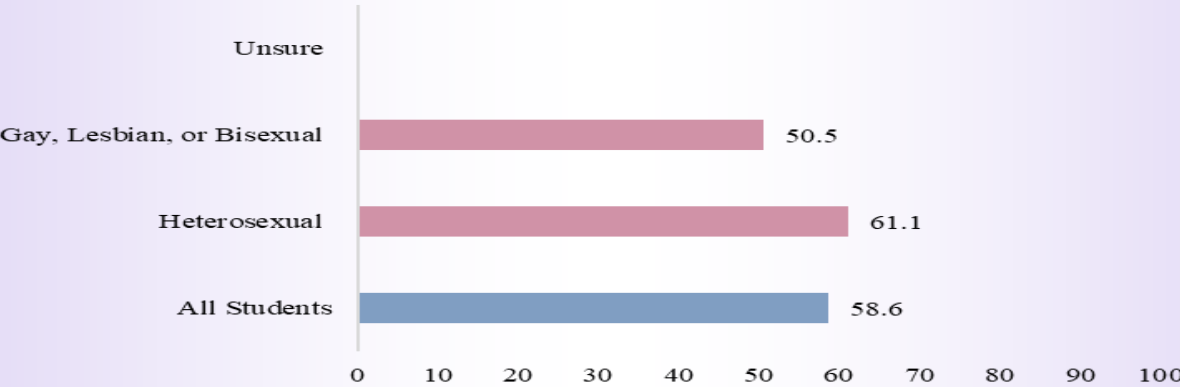
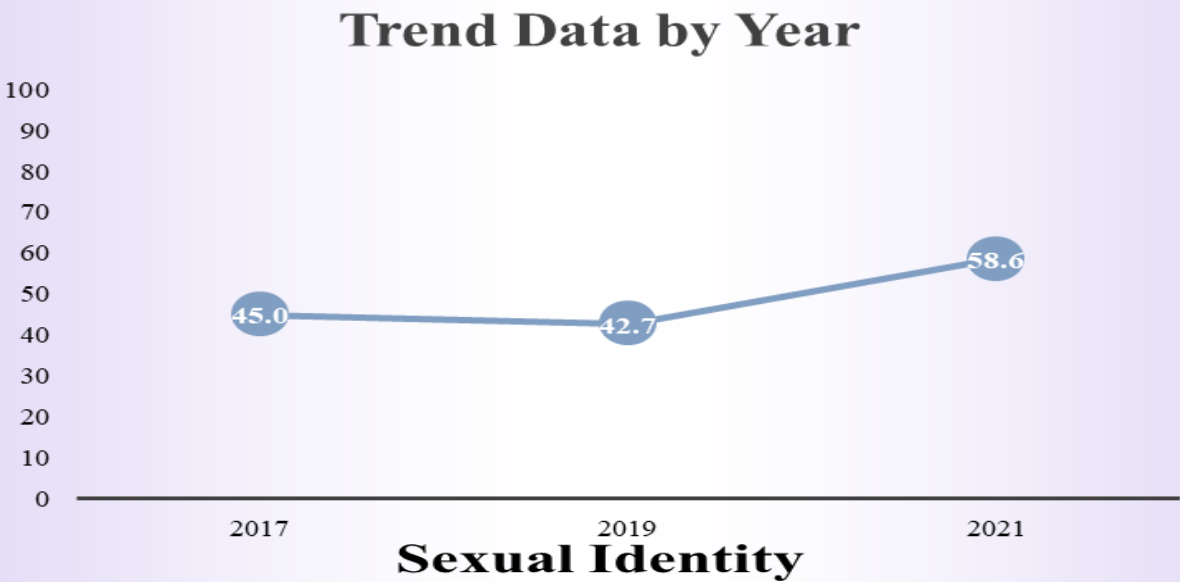
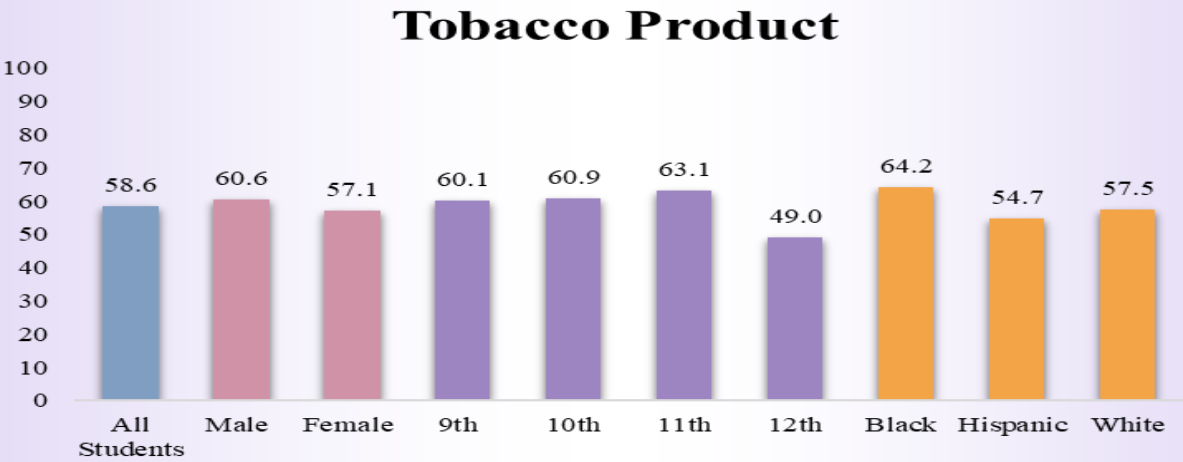


Sexual Identity



Tobacco Product Cessation

Among users of tobacco products during the past 12 months, 58.6 percent of students tried to quit using all products including cigarettes, electronic vapor products, smokeless tobacco, cigars, shisha, or hookah tobacco, or pipe tobacco.



## **Alcohol and other Drug Use: Alcohol**

### **QUESTIONS:**

- 45. How old were you when you had your first drink of alcohol other than a few sips?
- 46. During the past 30 days, on how many days did you have at least one drink of alcohol?
- 47. During the past 30 days, on how many days did you have 4 or more drinks of alcohol in a row, that is, within a couple of hours (if you are female) or 5 or more drinks of alcohol in a row, that is, within couple of hours (if you are male)?
- 48. During the past 30 days, what is the largest number of alcoholic drinks you had in a row, that is, within a couple of hours?
- 49. During the past 30 days, how did you usually get the alcohol you drank?

### **RATIONALE:**

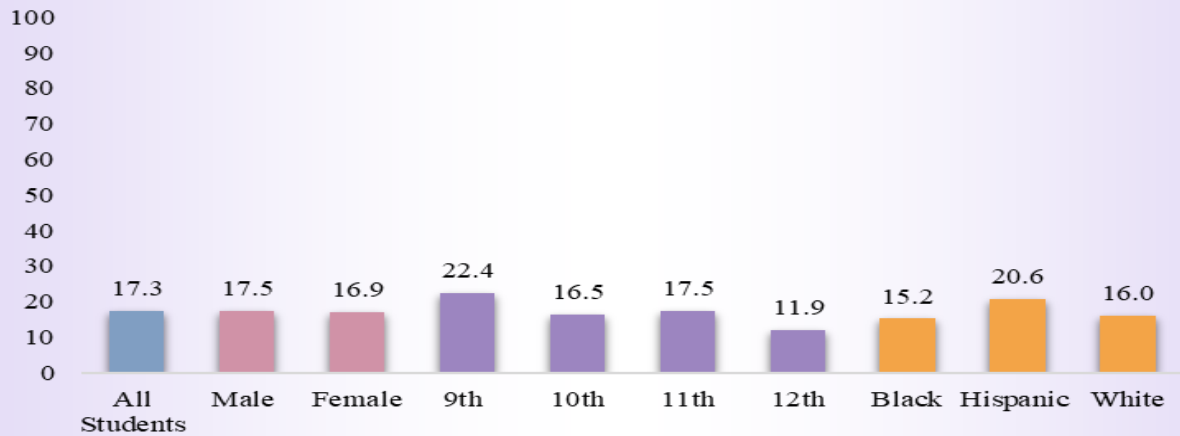
These questions measure lifetime and current use of alcohol, age of initiation, binge drinking, the largest number of alcoholic drinks consumed during a drinking occasion, and access to alcohol. Excessive drinking is responsible for more than 4,300 deaths among underage youth each year, and drinking by individuals younger than age 21 years cost the U.S. \$24 billion in 2010.(88,89) Underage drinking contributes to a wide range of health and social problems, including motor vehicle crashes, interpersonal violence (e.g., physical and sexual assaults), unintentional injuries (e.g., burns, falls, drownings), sexual risk behaviors, academic and memory problems, and alcohol and drug poisonings.(90-92) Early initiation of drinking is also associated with suicide and an increased risk of developing alcohol and substance use disorders later in life.(90,92-94) Binge drinking is the most common pattern of excessive alcohol use in the United States, and most people younger than age 21 who drink alcohol report binge drinking, often consuming large amounts of alcohol.(90,95) More than two in five high school students who reported binge drinking consumed eight or more drinks in a row.(95) The National Institute on Alcohol Abuse and Alcoholism (NIAAA) defines binge drinking as a pattern of drinking that brings a person's blood alcohol concentration to 0.08% or above. This typically happens when males consume 5 or more drinks and when females consume 4 or more drinks in about 2 hours.(96) Limiting youth access to alcohol has reduced underage alcohol use and alcohol-related problems.(97,98) However, youth continue to obtain alcohol from a variety of sources, particularly from adults of legal drinking age.(99)

Among high school students nationwide in 2019, 15% reported they had their first drink of alcohol (more than a few sips) before age 13(99) and 29% reported they drank at least one drink of alcohol during the 30 days before the survey.(100) In addition, 14% of high school students reported binge drinking during the 30 days before the survey.(100) The percentage of high school students who reported current alcohol use decreased significantly during 1991–2019 (from 51% to 29%).(99) The percentage of high school students reporting alcohol initiation younger than 13 years decreased significantly during 1991-2019 and the percentage reporting 10 or more drinks as the largest number of drinks during an occasion decreased significantly during 2013- 2019.(100)

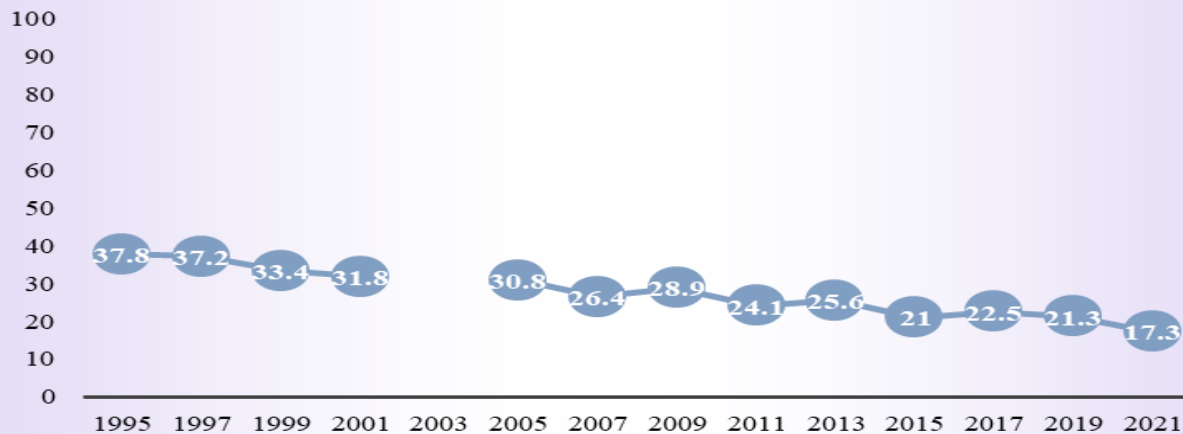
## Drank Alcohol Before Age 13 Years

Statewide, 17.3 percent of students had their first drink of alcohol other than a few sips before age 13.

### Demographic Breakdown



### Trend Data by Year

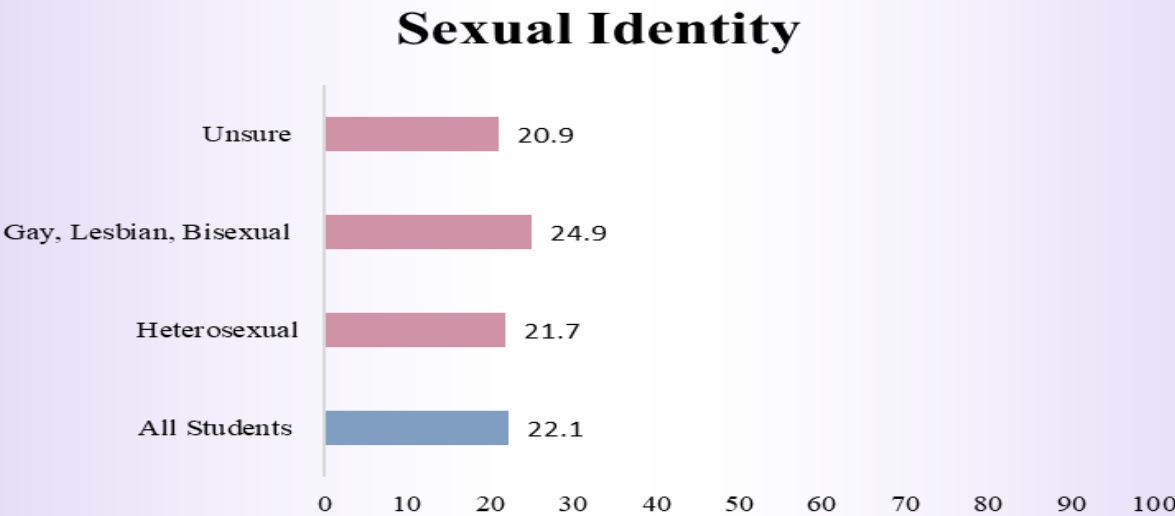
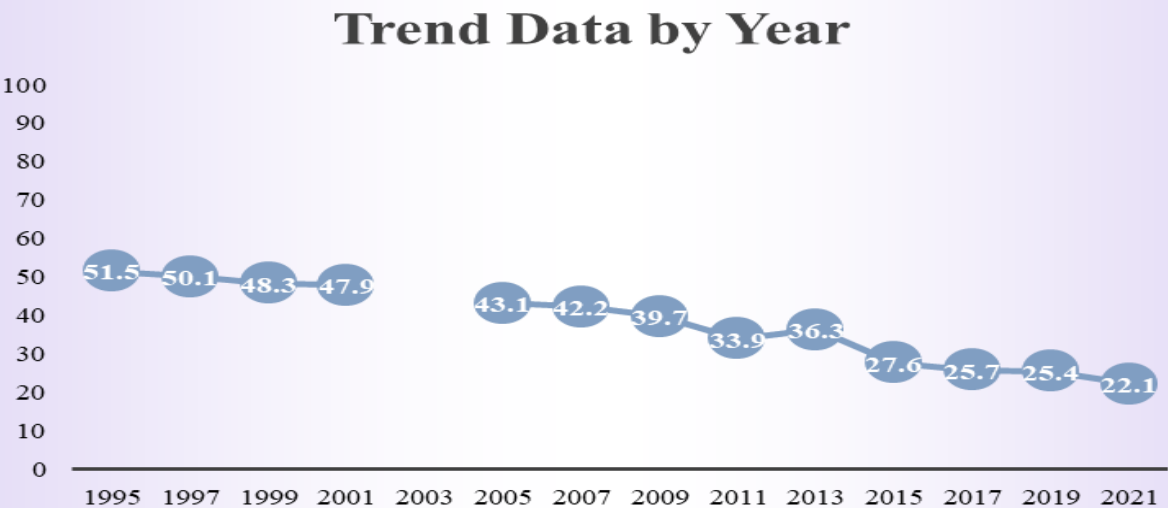
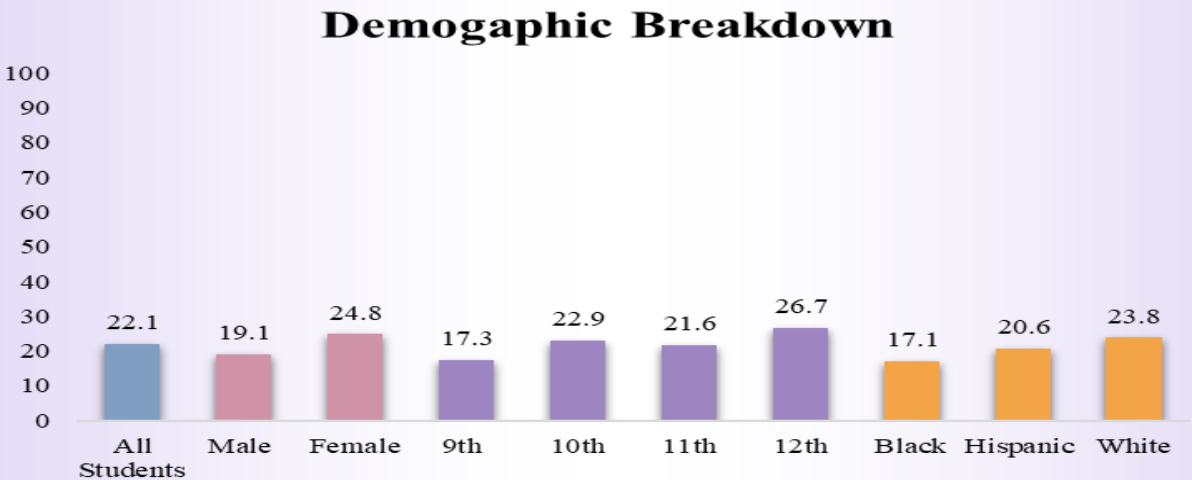


### Sexual Identity



Current Alcohol Use

Statewide, 22.1 percent of students had at least one drink of alcohol on one or more of the past 30 days.

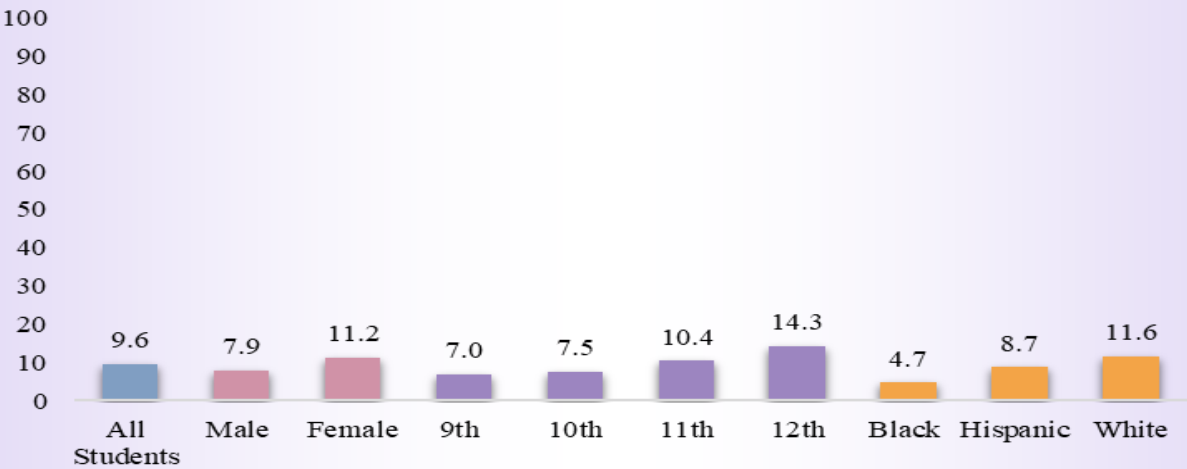




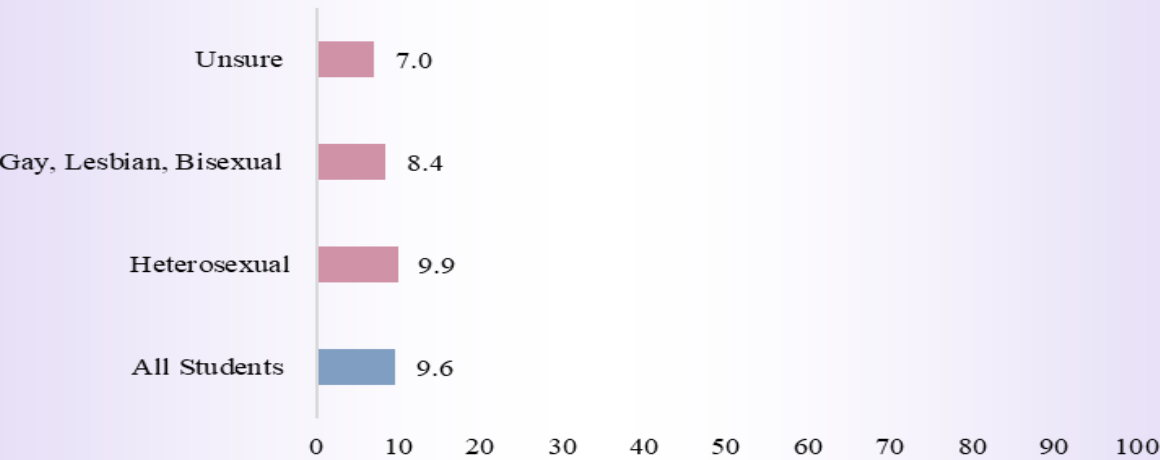
Binge Drinking

During the past 30 days, 9.6 percent of students had four or more drinks of alcohol in a row for female students or five or more drinks of alcohol in a row for male students, within a couple of hours.

Demographic Breakdown

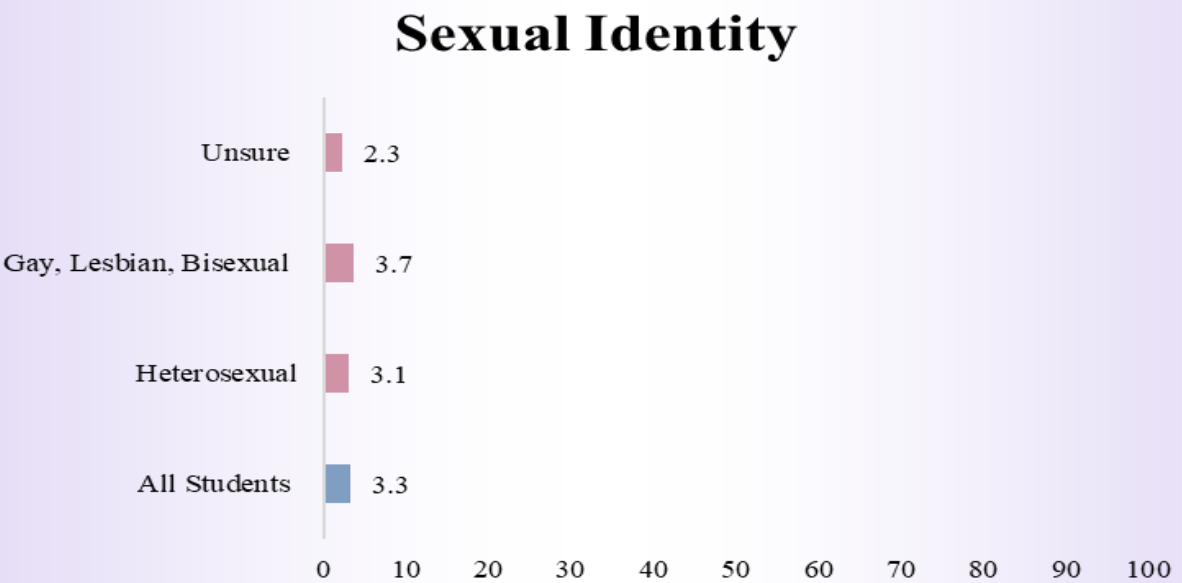
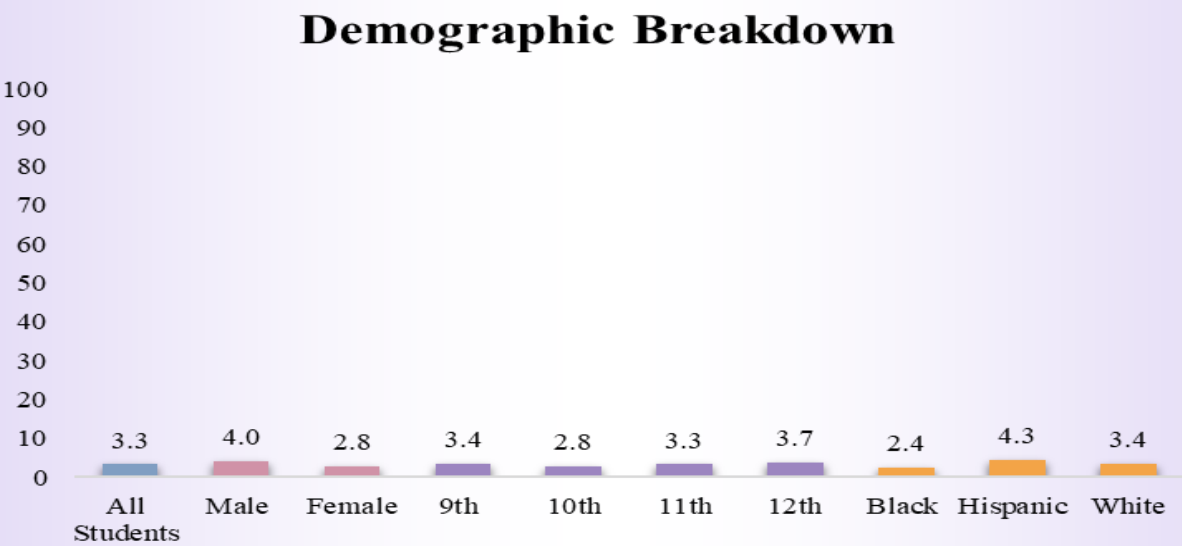


Sexual Identity



10 or More Drinks of Alcohol

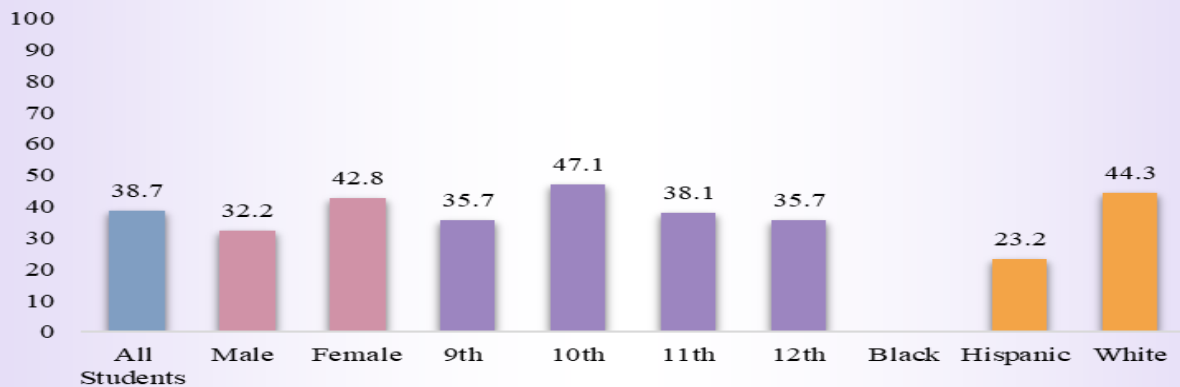
Statewide 3.3 percent of students had ten or more drinks of alcohol in a row, within a couple of hours during the past 30 days.



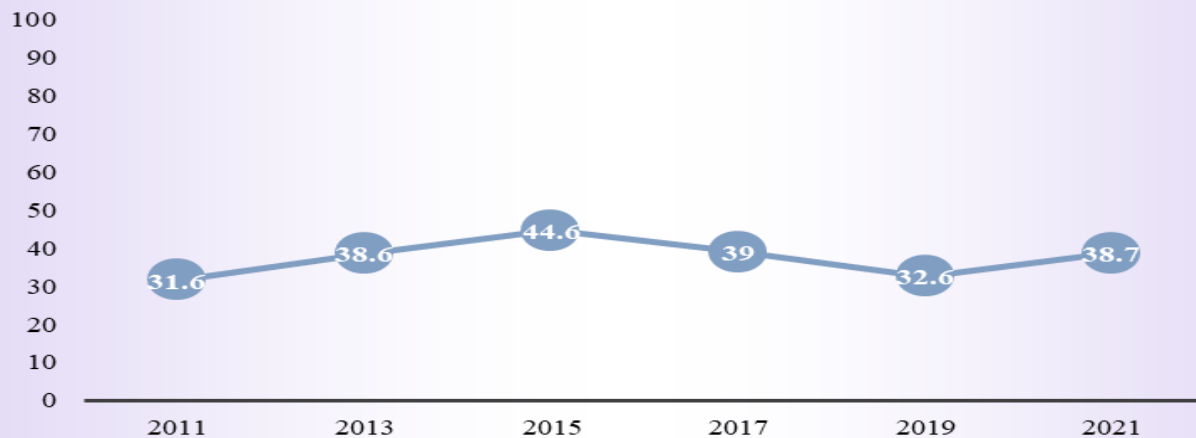
## Obtained Alcohol From Someone

Among students who reported current alcohol use, 38.7 percent usually got the alcohol they drank from someone else who gave it to them during the past 30 days.

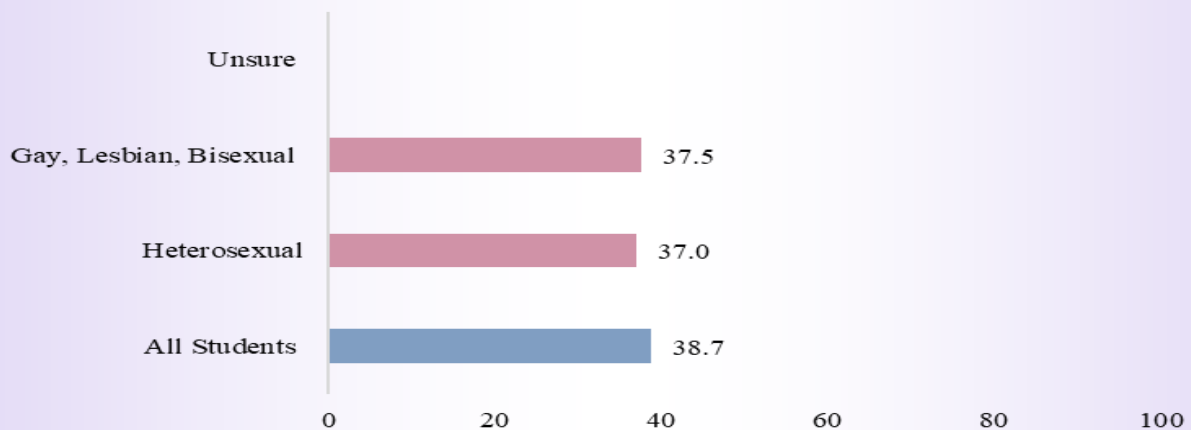
### Demographic Breakdown



### Trend Data by Year



### Sexual Identity



## **Alcohol and other Drug Use: Drug Use**

### **QUESTIONS:**

50. During your life, how many times have you used marijuana?
51. How old were you when you tried marijuana for the first time?
52. During the past 30 days, how many times did you use marijuana?
53. During your life, how many times have you used synthetic marijuana?
54. During your life, how many times have you taken prescription pain medicine without a doctor's prescription or differently than how a doctor told you to use it?
55. During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?
56. During your life, how many times have you sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?
57. During your life, how many times have you used heroin (also called smack, junk, or China White)?
58. During your life, how many times have you used methamphetamines (also called speed, crystal meth, crank, ice, or meth)?
59. During your life, how many times have you used ecstasy (also called MDMA)?
60. During your life, how many times have you used a needle to inject any illegal drug into your body?
61. During the past 12 months, has anyone offered, sold, or given you an illegal drug on school property?

### **RATIONALE:**

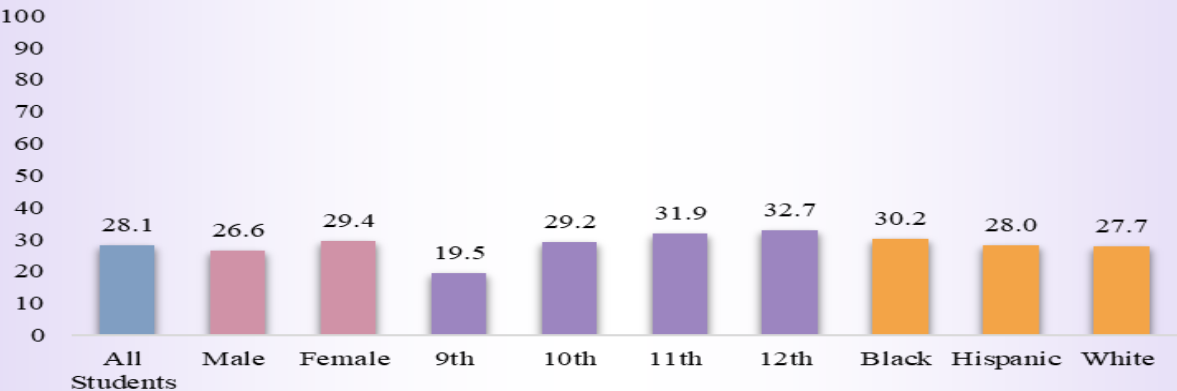
These questions measure lifetime and current use of marijuana (including lifetime use of synthetic marijuana, also known as synthetic cannabinoids) and ever use of cocaine, inhalants, heroin, methamphetamines, ecstasy, and injected drugs; use of prescription pain medicine without a doctor's prescription, or used in a manner differently than instructed by the doctor; and illegal drug activity on school property. Among youth, illicit drug use is associated with heavy alcohol and tobacco use,(101) violence and delinquency,(102-104) and suicide.(105) Synthetic cannabinoids use has been linked with adverse effects such as increased heart rate and blood pressure, drowsiness, nausea, vomiting, chest pain, hallucinations, agitation, acute kidney injury, and death. (106) Data also show that high school students who use synthetic cannabinoids tend to engage in more risky behaviors related to sex, substance use, and injury/violence than students who use marijuana only.(107) All school districts prohibit illegal drug possession or use by students on school property.(108)

Among high school students nationwide in 2019, 37% had used marijuana, 7% had used synthetic cannabinoids, 4% had used any form of cocaine, 2% had used heroin, 2% had used methamphetamines, 4% had used ecstasy, and 14% had taken prescription pain medicine without a doctor's prescription or differently than how a doctor told them to use it one or more times during their life. (109) In 2019, 6% of high school students nationwide had sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high and 2% had used a needle to inject any illegal drug into their body one or more times during their life.(109) Also, 22% of students had been offered, sold, or given an illegal drug on school property during the 12 months before the survey.(109) The percentage of high school students who had used marijuana one or more times during their life increased during 1991–1997 (31%–47%) and then decreased during 1997–2019 (47%–37%).(109) The percentage of high school students who had used cocaine one or more times during their life increased during 1991–2001 (6%–9%) and then decreased during 2001–2019 (9%–4%).(109) The percentage of high school students who had used heroin one or more times during their life did not change significantly during 1999–2011 (2%-3%) then decreased slightly during 2011–2019 (3%-2%).(109) The percentage of high school students who had used methamphetamines one or more times during their life decreased significantly during 1999–2019 (9%–2%).(109) The percentage of high school students who had used ecstasy one or more times during their life decreased significantly from 2001–2019 (11%–4%).(109)

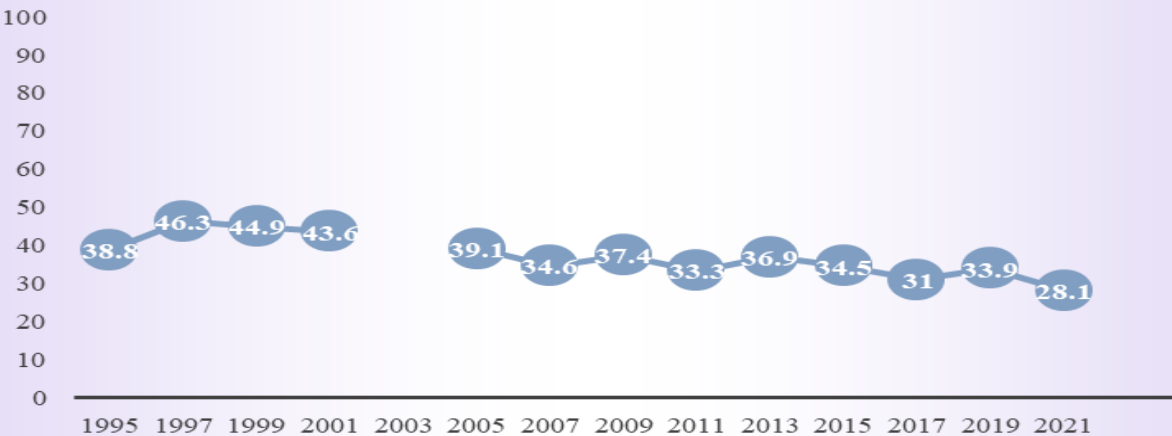
Lifetime Marijuana Use

Statewide, 28.1 percent of students used marijuana one or more times during their life.

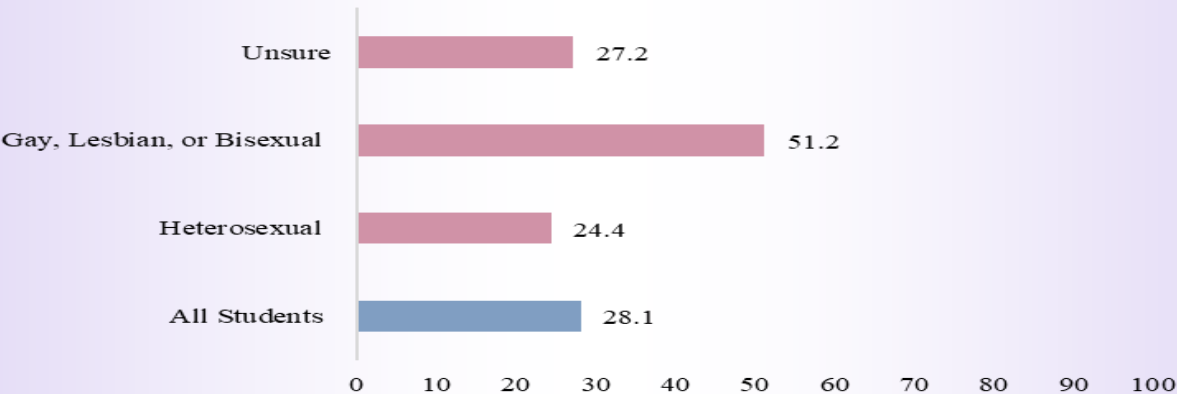
Demographic Breakdown



Trend Data by Year



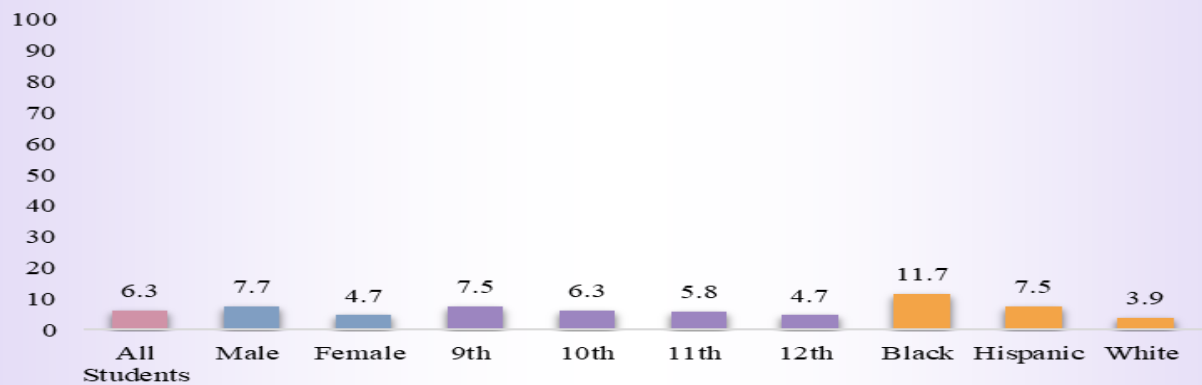
Sexual Identity



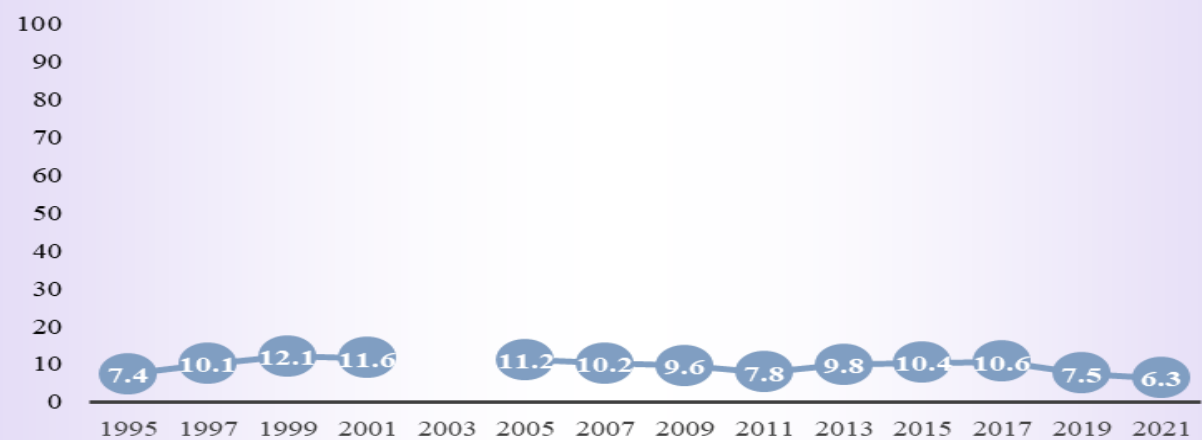
### Tried Marijuana Before Age 13

Statewide, 6.3 percent of students had tried marijuana for the first time before age 13 years.

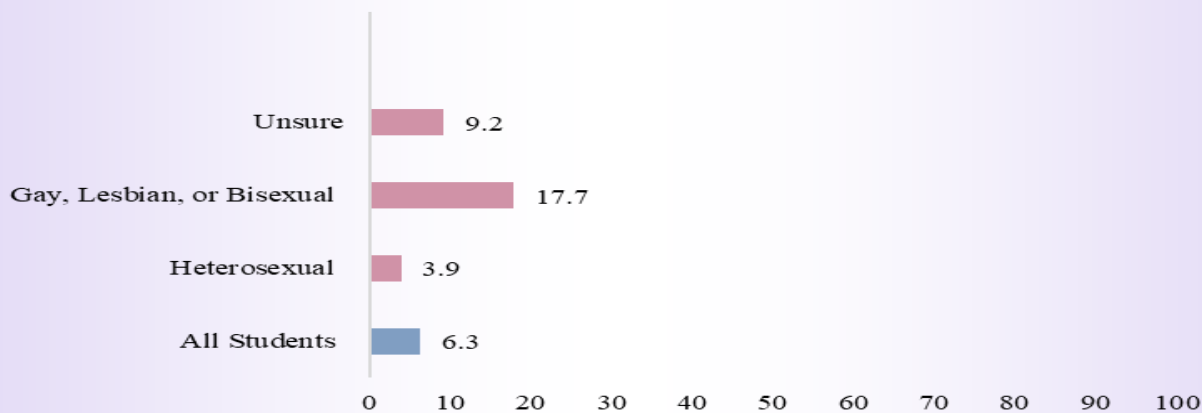
#### Demographic Breakdown



#### Trend Data by Year



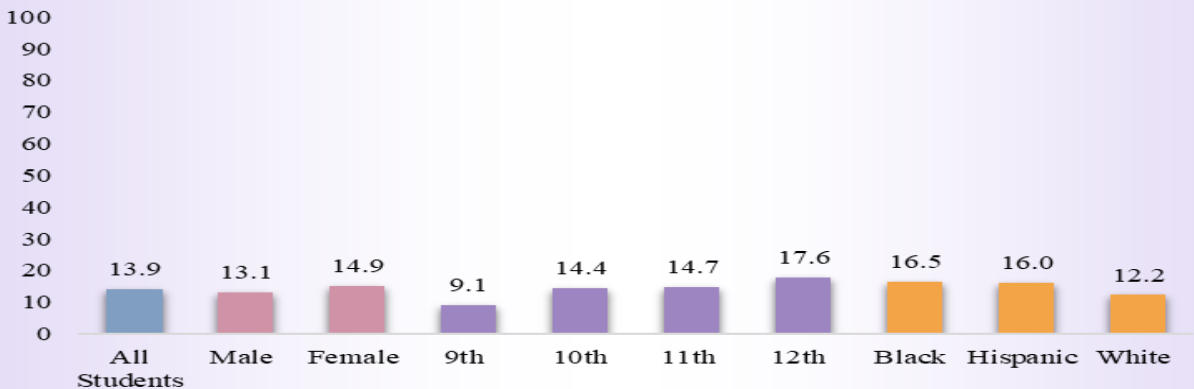
#### Sexual Identity



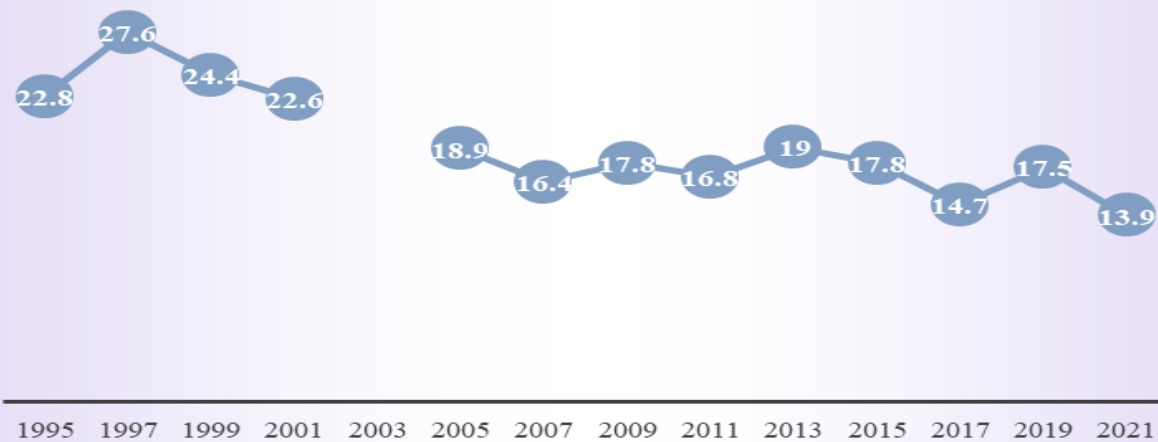
Current Marijuana Use

During the past 30 days, 13.9 percent of Arkansas high school students used marijuana one or more times.

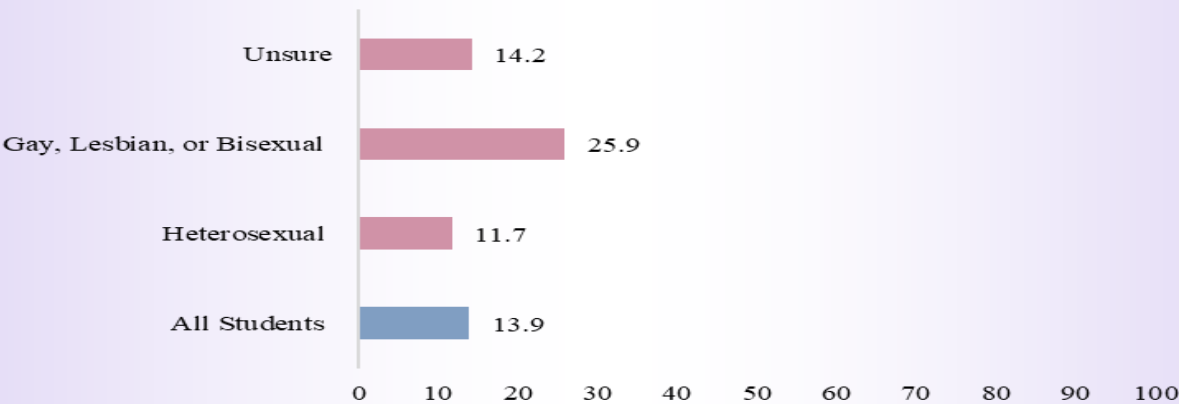
Demographic Breakdown



Trend Data by Year



Sexual Identity

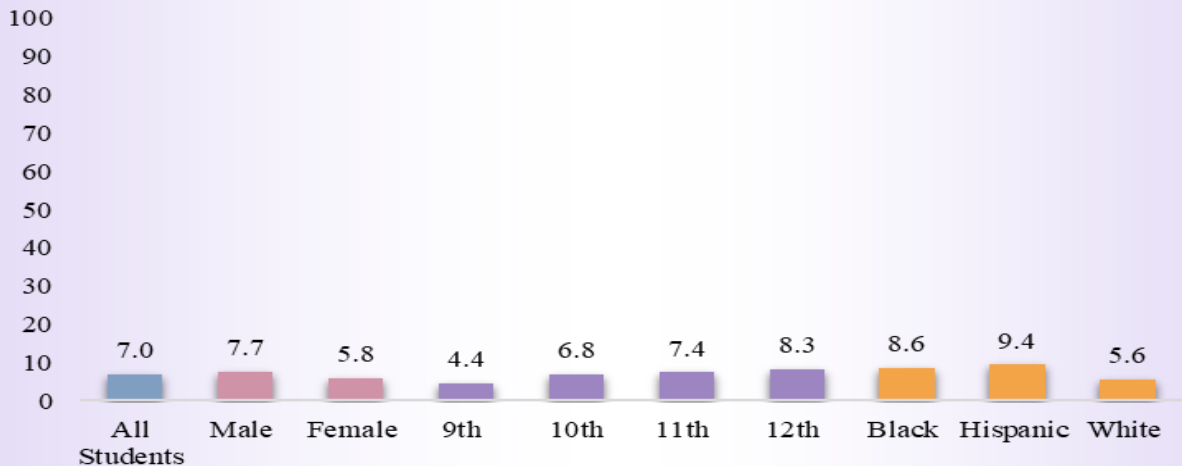




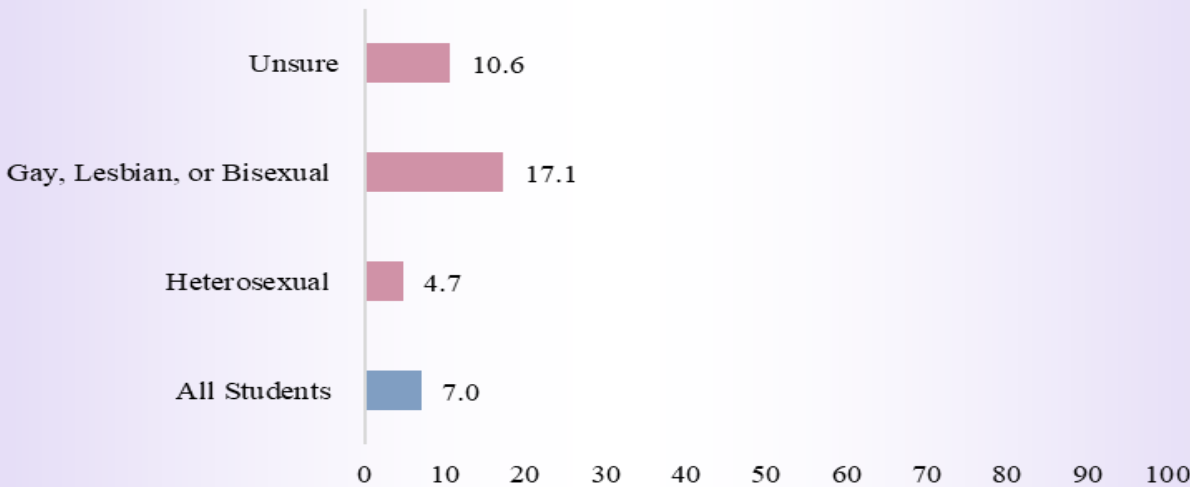
**Lifetime Synthetic Marijuana**

Statewide, 7.0 percent of students had used synthetic marijuana during their life.

**Demographic Breakdown**



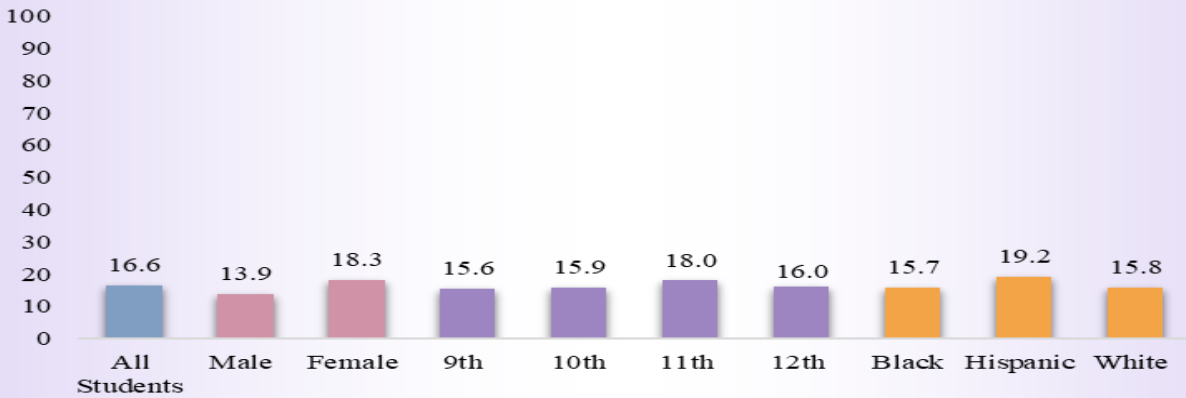
**Sexual Identity**



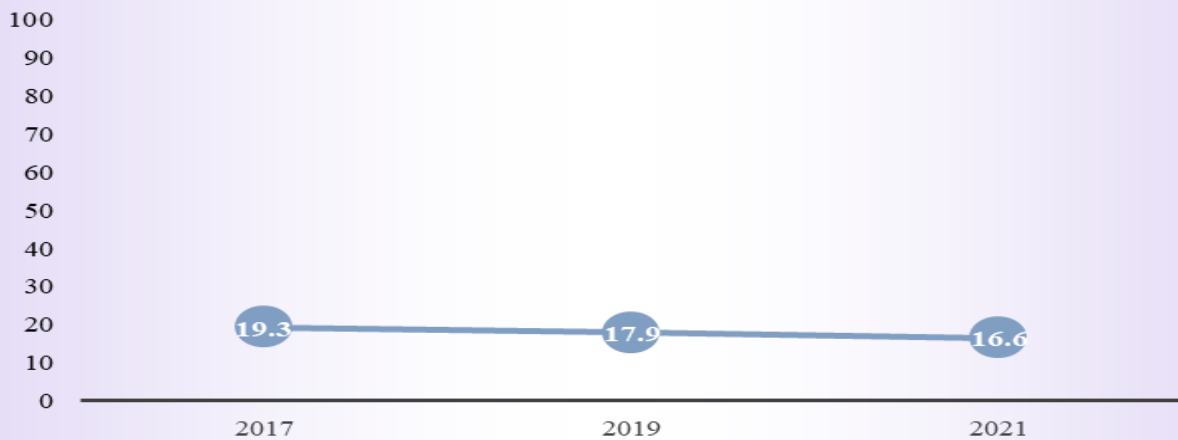
## Lifetime Prescription Pain Medicine

Statewide, 16.6 percent of students took prescription pain medicine (such as co-deine, Vicodin, OxyContin, Hydrocodone, and Percocet) without a doctor's prescription or differently than how a doctor told them to use it during their life.

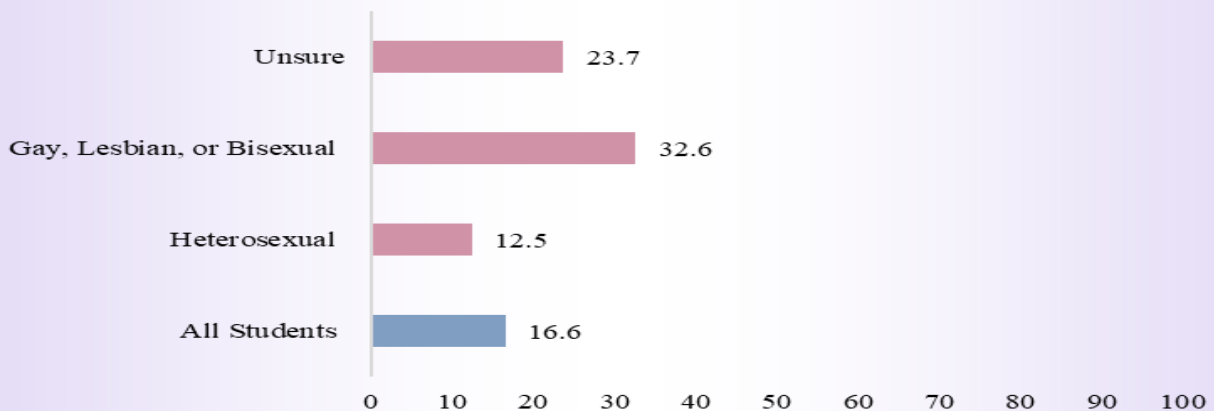
### Demographic Breakdown



### Trend Data by Year

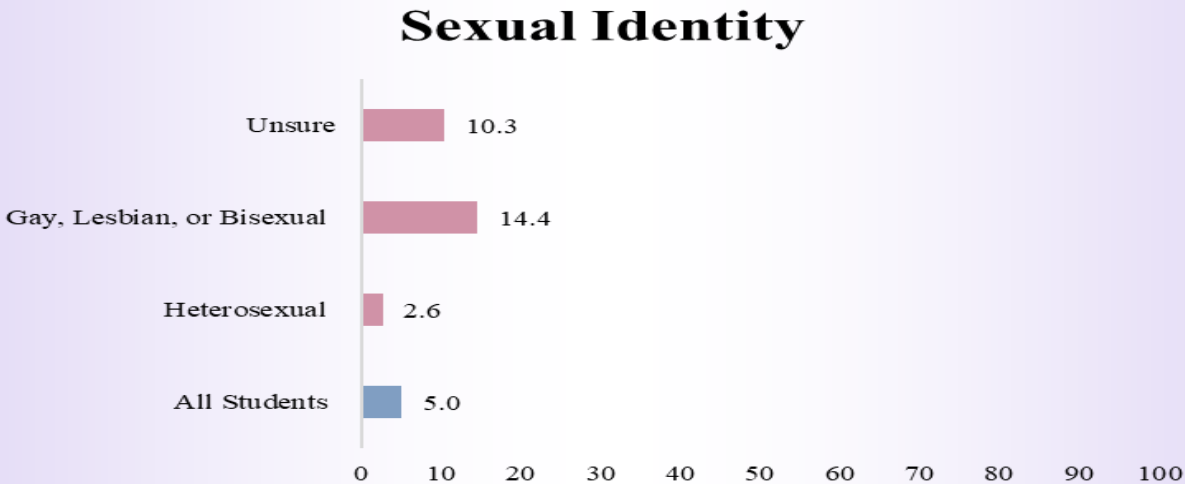
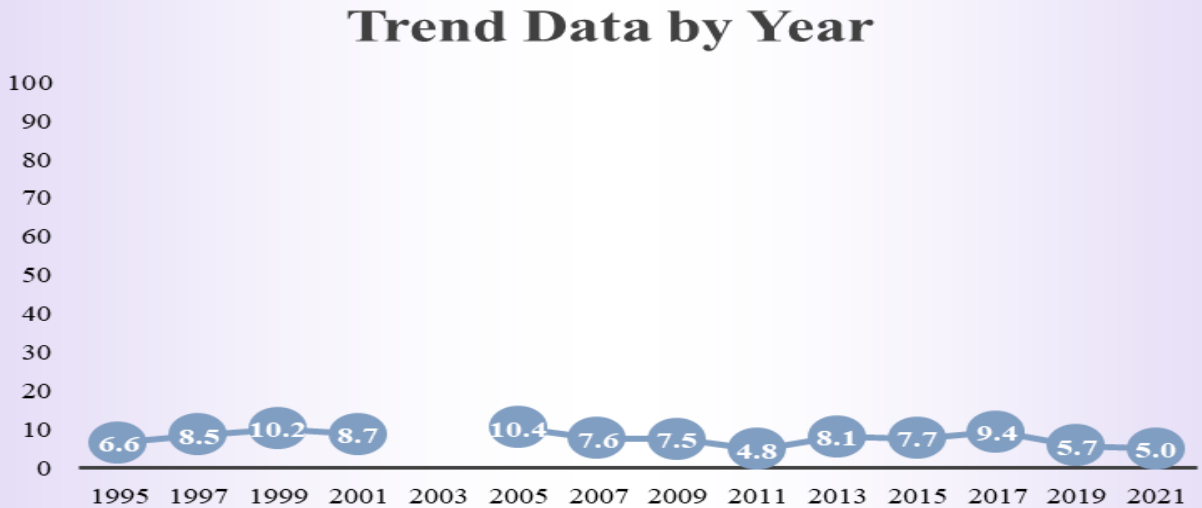
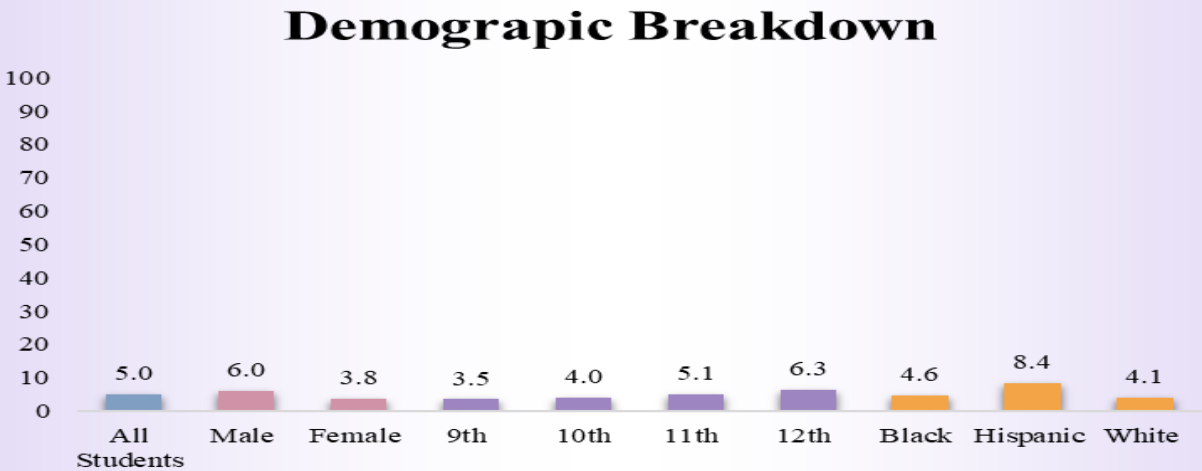


### Sexual Identity



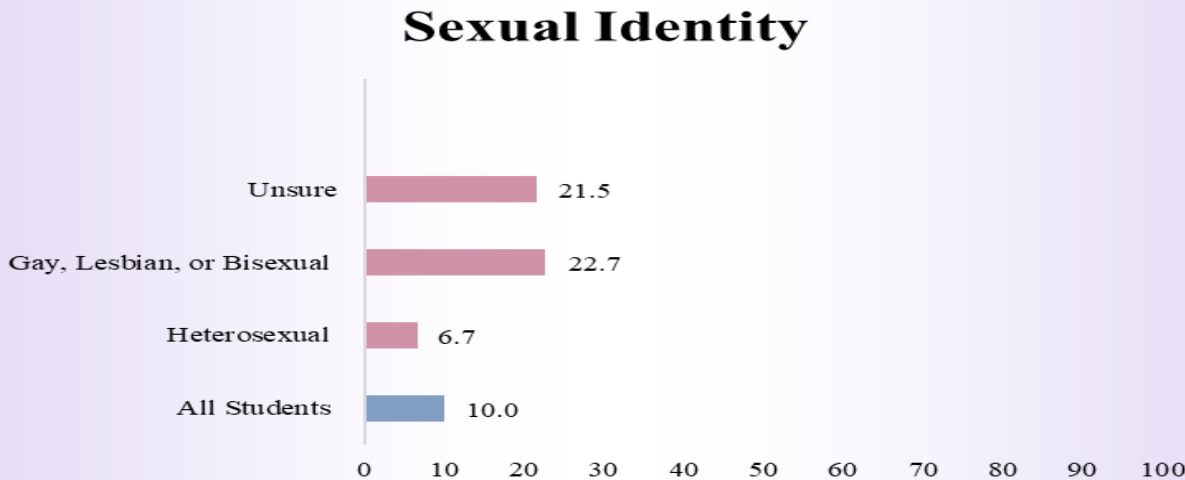
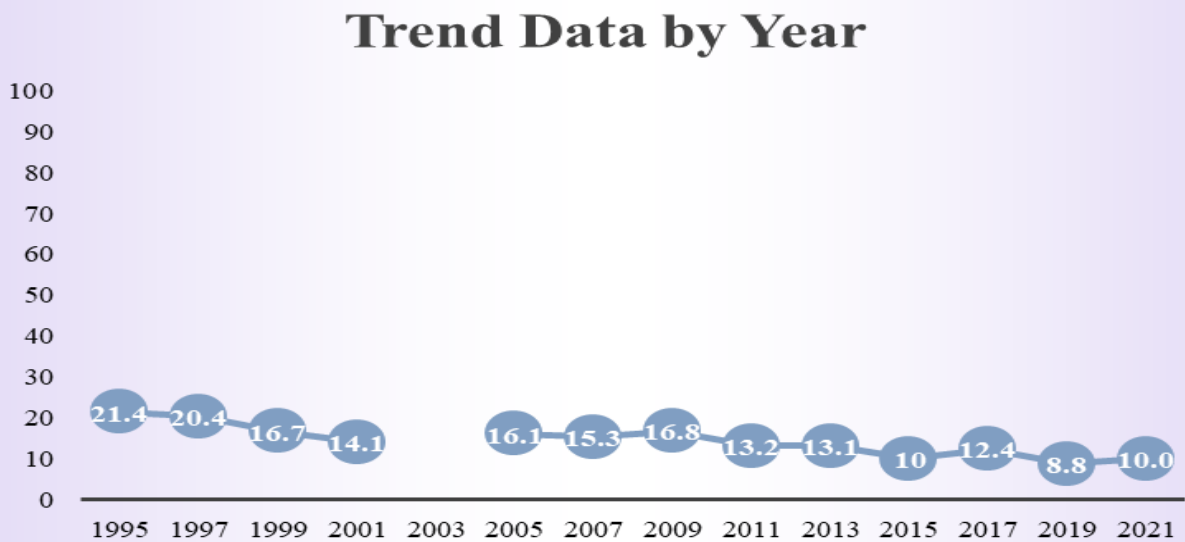
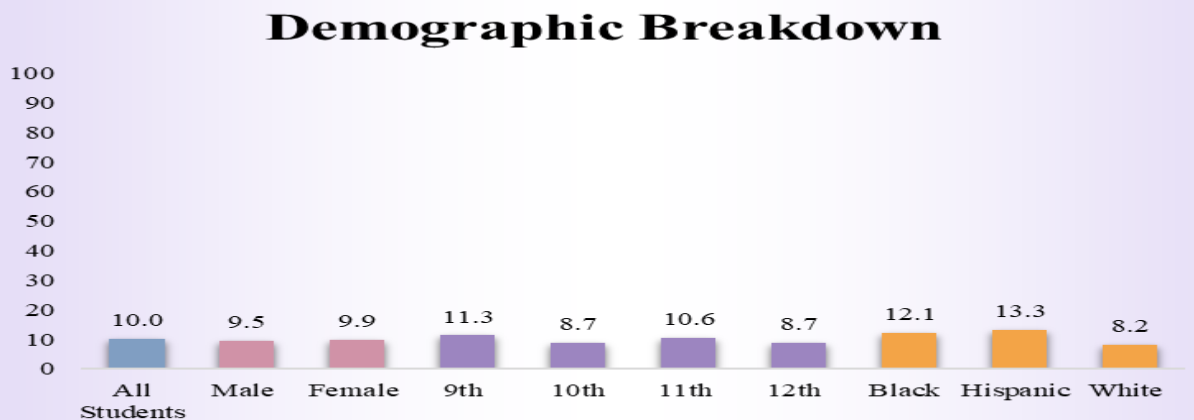
Lifetime Cocaine Use

Statewide, 5.0 percent of students used any form of cocaine, including powder, crack, or freebase one or more times during their life.



Lifetime Inhalant Use

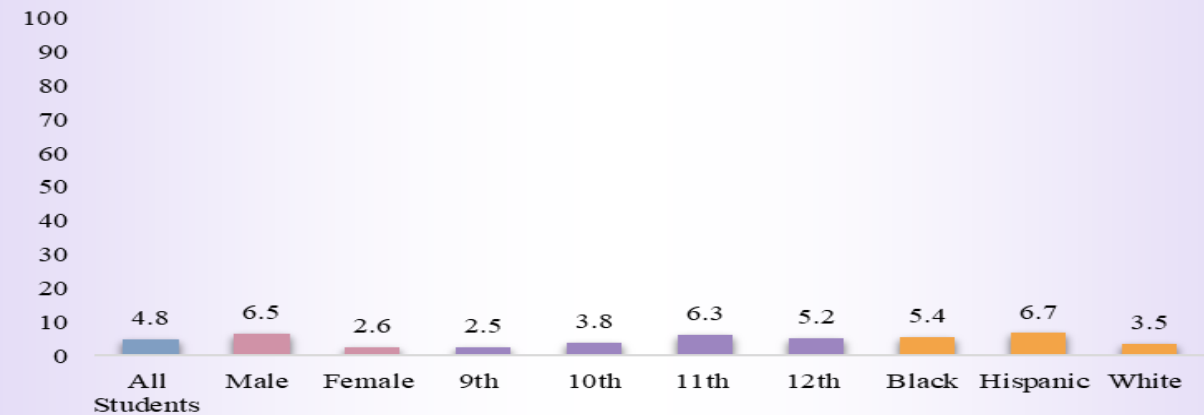
Statewide, 10.0 percent of students sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high one or more times during their life.



Lifetime Heroin Use

Statewide, 4.8 percent of students used heroin one or more times during their life.

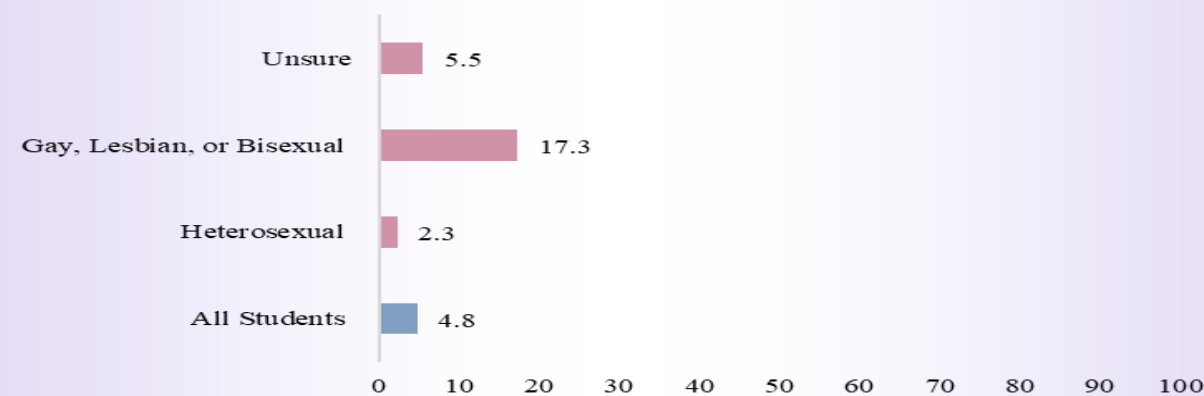
Demographic Breakdown



Trend Data by Year



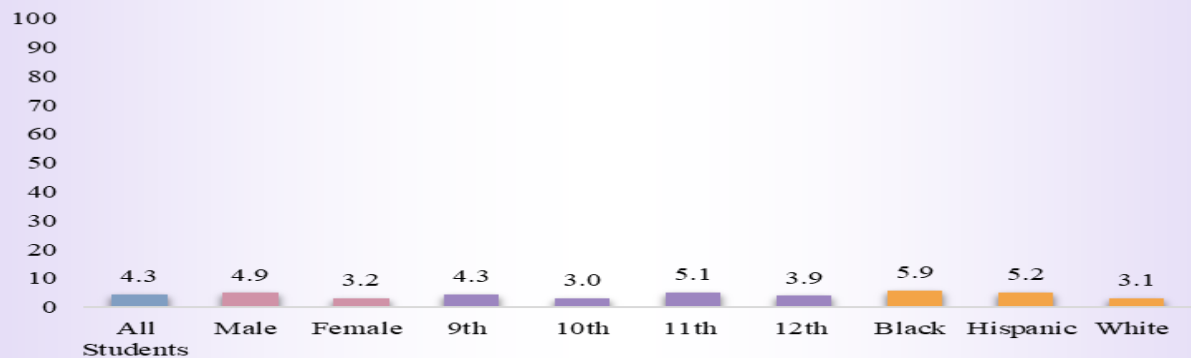
Sexual Identity



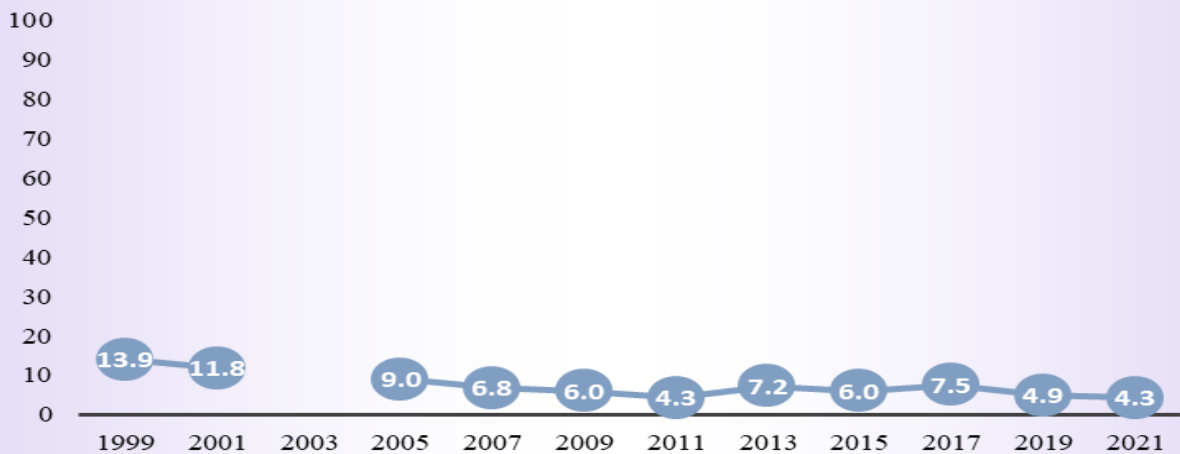
Lifetime Methamphetamine Use

Statewide, 4.3 percent of students had used methamphetamines one or more times during their life.

Demographic Breakdown



Trend Data by Year



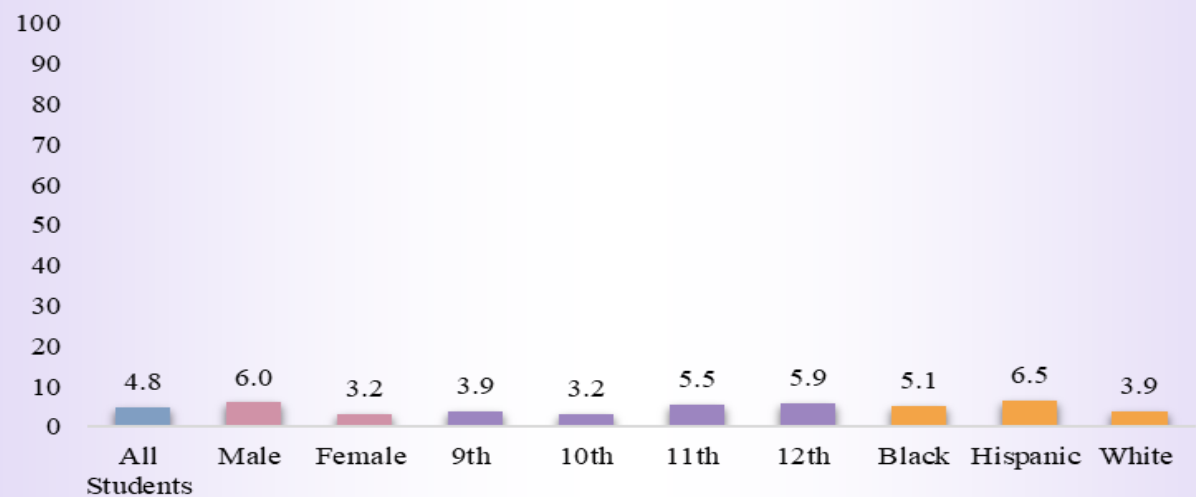
Sexual Identity



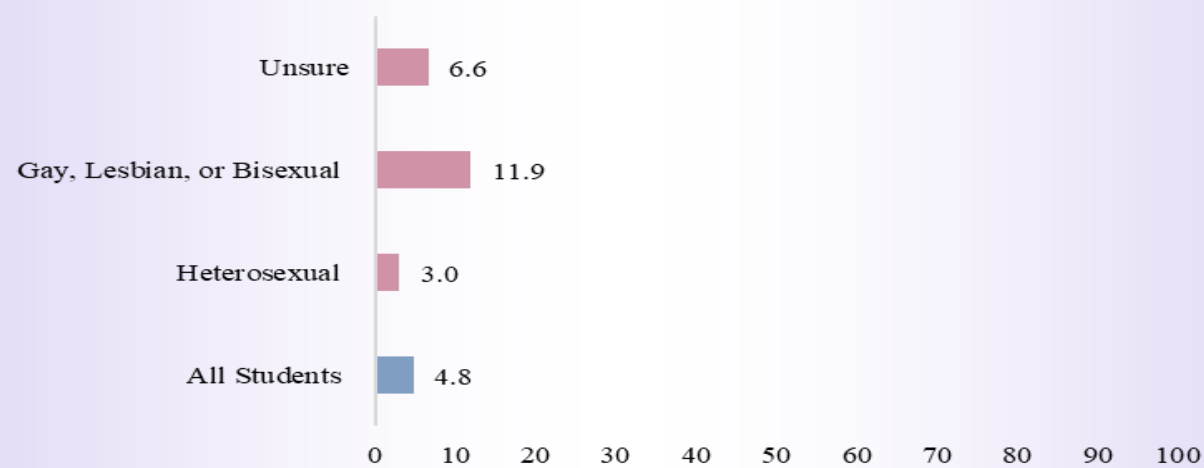
**Lifetime Ecstasy Use**

Statewide, 4.8 percent of students used ecstasy, also called "MDMA", one or more times during their life.

**Demographic Breakdown**



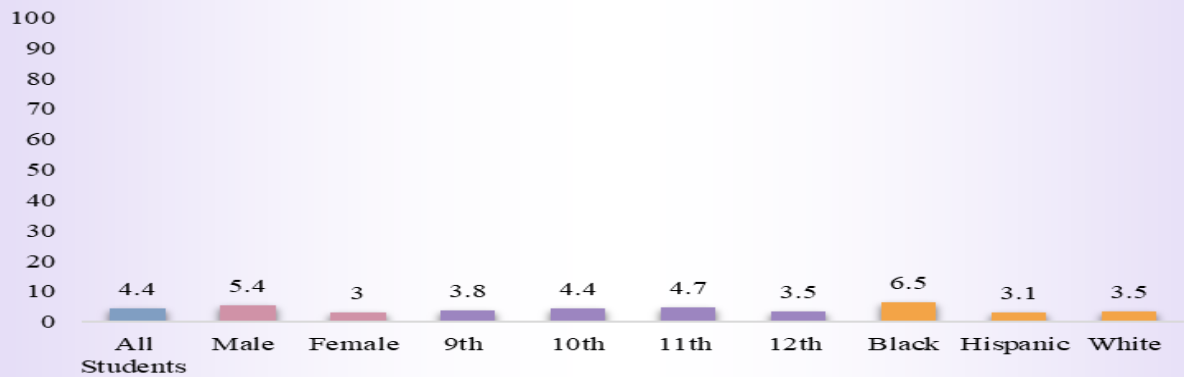
**Sexual Identity**



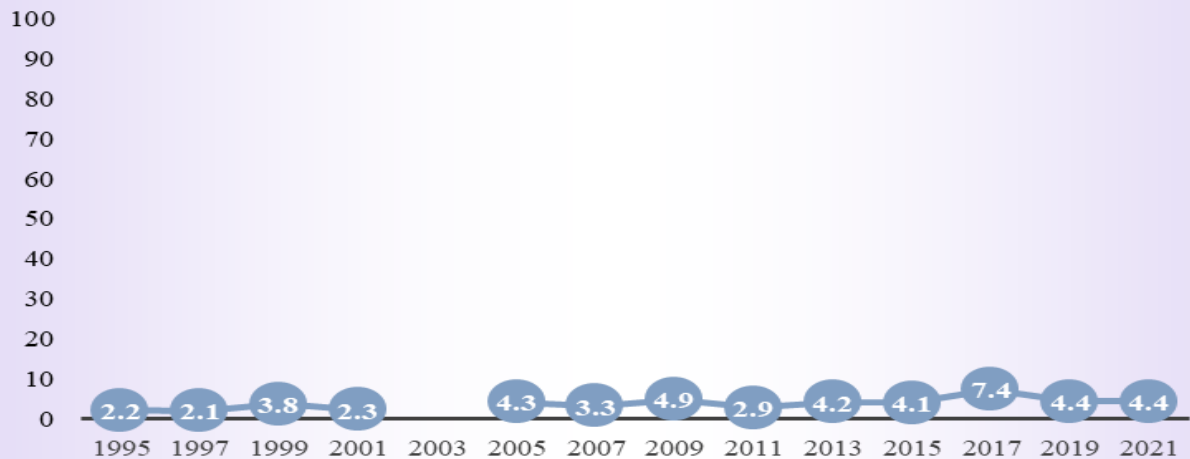
Lifetime Injecting Drug Use

Statewide, 4.4 percent of students used a needle to inject any illegal drug into their body during their lifetime.

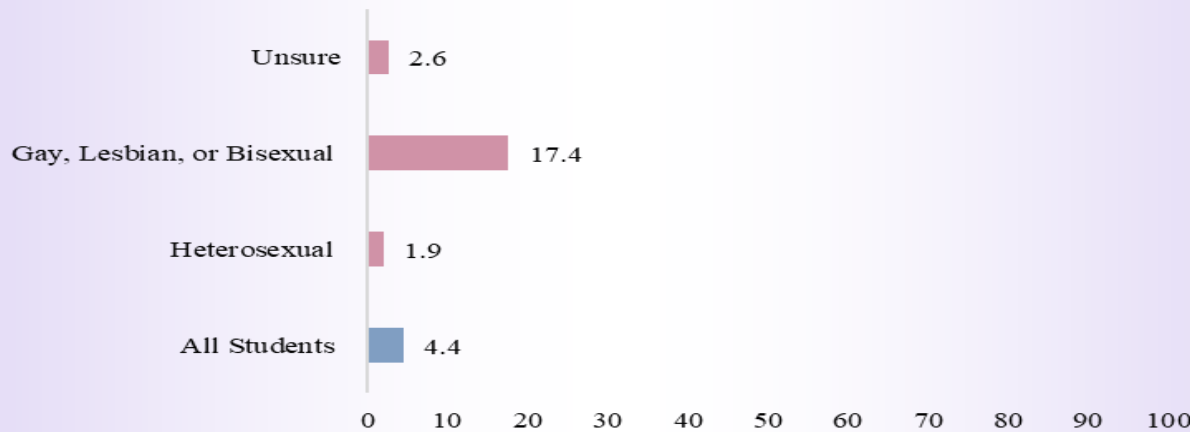
Demographic Breakdown



Trend Data by Year



Sexual Identity

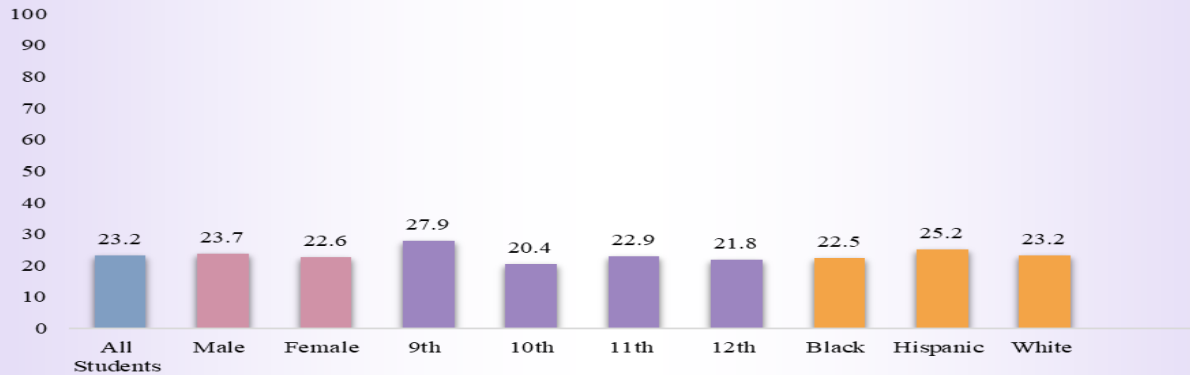




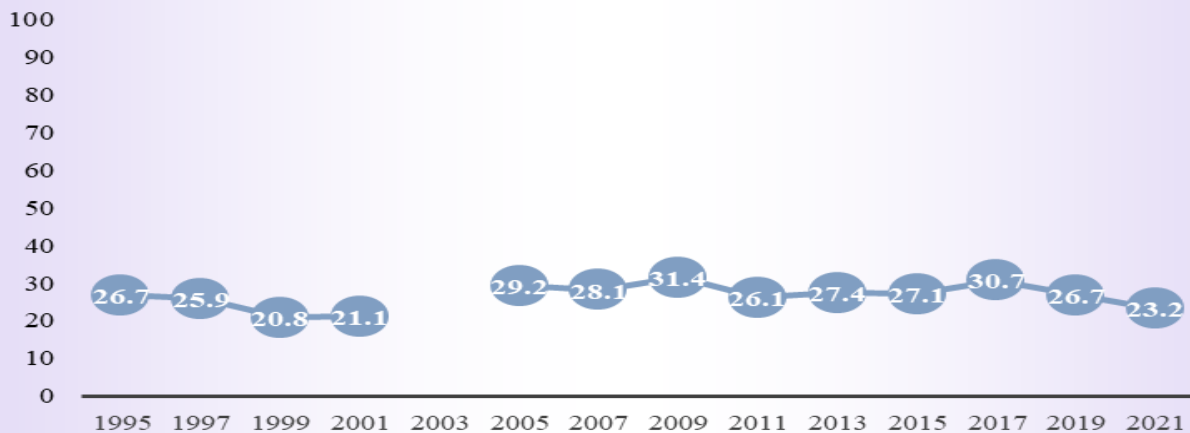
## Were Offered, Sold, or Given an Illegal Drug on School Property

Statewide, 23.2 percent of students were offered, sold, or given an illegal drug by someone on school property during the past 12 months.

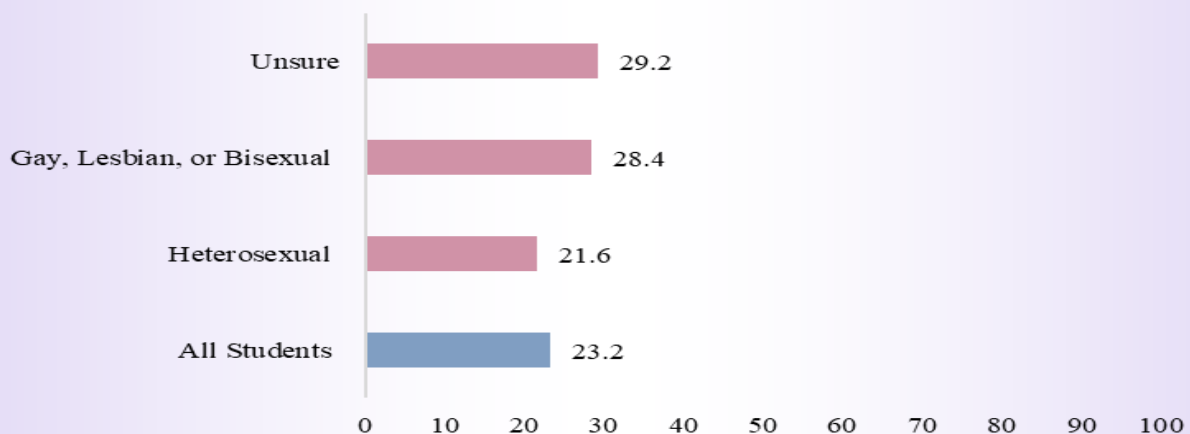
### Demographic Breakdown



### Trend Data by Year



### Sexual Identity



## **Sexual Behaviors**

### **QUESTIONS:**

- 62. Have you ever had sexual intercourse?
- 63. How old were you when you had sexual intercourse for the first time?
- 64. During your life, with how many people have you had sexual intercourse?
- 65. During the past 3 months, with how many people did you have sexual intercourse?
- 66. Did you drink alcohol or use drugs before you had sexual intercourse the last time?
- 67. The last time you had sexual intercourse, did you or your partner use a condom?
- 68. The last time you had sexual intercourse, what one method did you or your partner use to prevent pregnancy?
- 69. During your life, with whom have you had sexual contact?
- 70. Which of the following best describes you?

### **RATIONALE:**

These questions measure the prevalence of sexual activity, number of sexual partners, age at first intercourse, alcohol and other drug use related to sexual activity, condom use, and contraceptive use. Early initiation of sexual intercourse is associated with having a greater number of lifetime sexual partners.(110,111) In addition, adolescents who initiate sexual intercourse early are less likely to use contraception(111,112) and are at higher risk for STDs(113) and pregnancy.(114,115) Estimates suggest that while representing 25% of the ever sexually active population, persons aged 15 to 24 years acquire more than half of all new STDs.(116) Both chlamydia and gonorrhea rates are high among young women between the ages of 20 and 24 years (4064.6) cases per 100,000 individuals and 702.6 cases per 100,000 individuals, respectively in 2018).(117) In 2018 in the United States and dependent areas, there were an estimated 1,739 persons ages 13–19 years newly diagnosed with HIV infection and 5,035 living with diagnosed HIV infection.(118) In 2018, young people aged 13–24 accounted for 21% of all new HIV infections in the United States.(118)

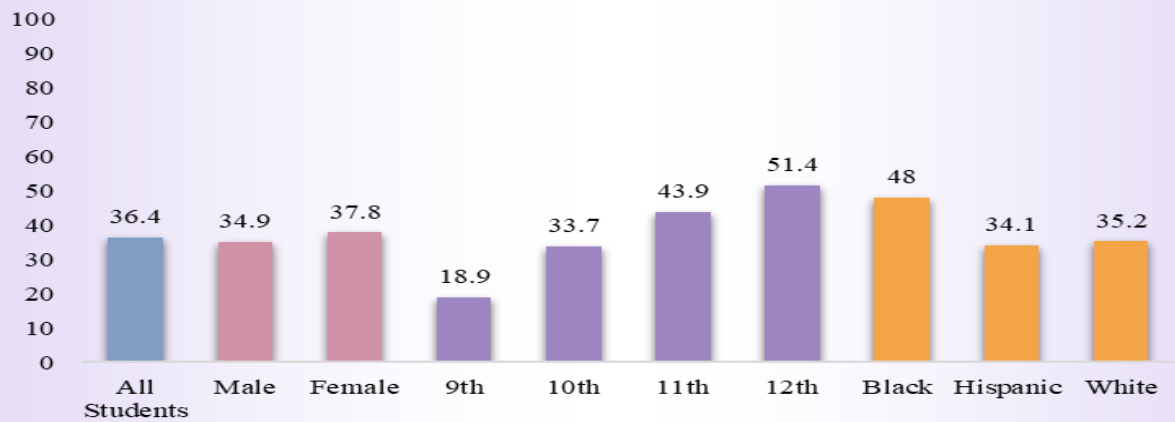
Among high school students nationwide in 2019, 38% had sexual intercourse, 9% had sexual intercourse with four or more persons during their life, and 27% had sexual intercourse with at least one person during the 3 months before the survey.(119) The percentage of students who ever had sexual intercourse decreased during 1991–2019 (54%–38%). (119) The percentage of students who had sexual intercourse with four or more persons during their life decreased during 1991–2019 (19%–9%).(119) During 1991–2013, there was a significant decrease in the percentage of students who had sexual intercourse with at least one person during the 3 months before the survey (38%–34%), and the percentage further decreased during 2013–2019 (34%–27%). (119) In 2019, among the 27% of students who were currently sexually active, 54% reported that either they or their partner had used a condom during last sexual intercourse.(120) The percentage of sexually active students who used a condom during last sexual intercourse

increased during 1991–2005 (46%–63%) and then decreased during 2005–2019 (63%–54%).  
(119)

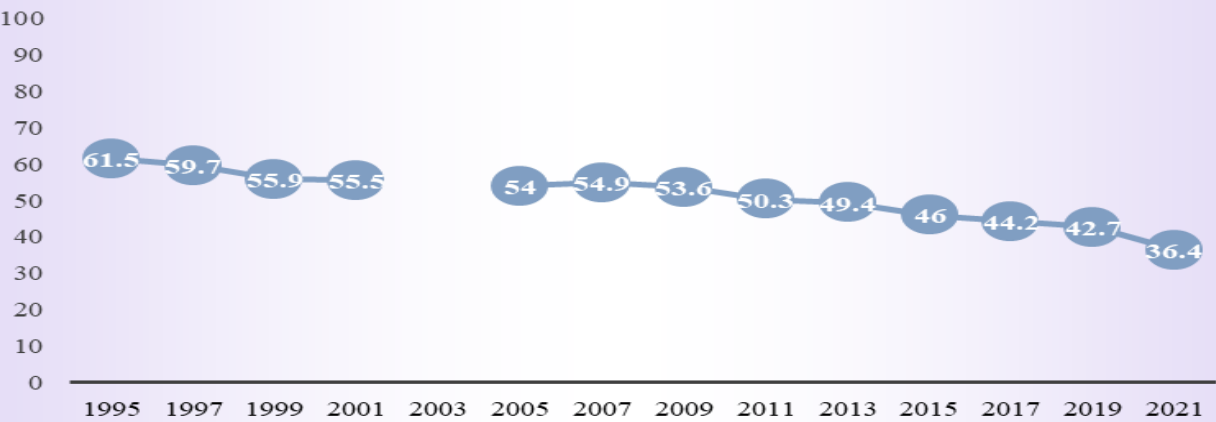
Lifetime Sexual Intercourse

Statewide, 36.4 percent of students have ever had sexual intercourse during their life.

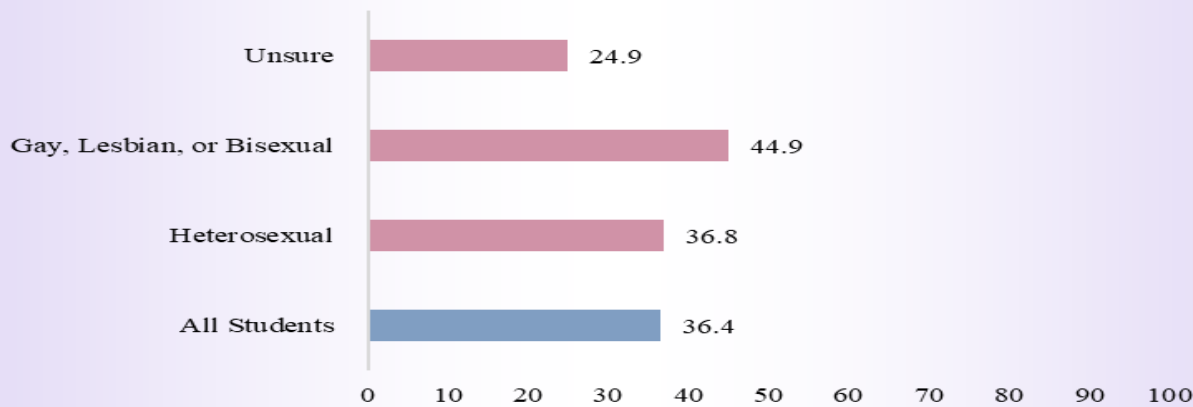
Demographic Breakdown



Trend Data by Year

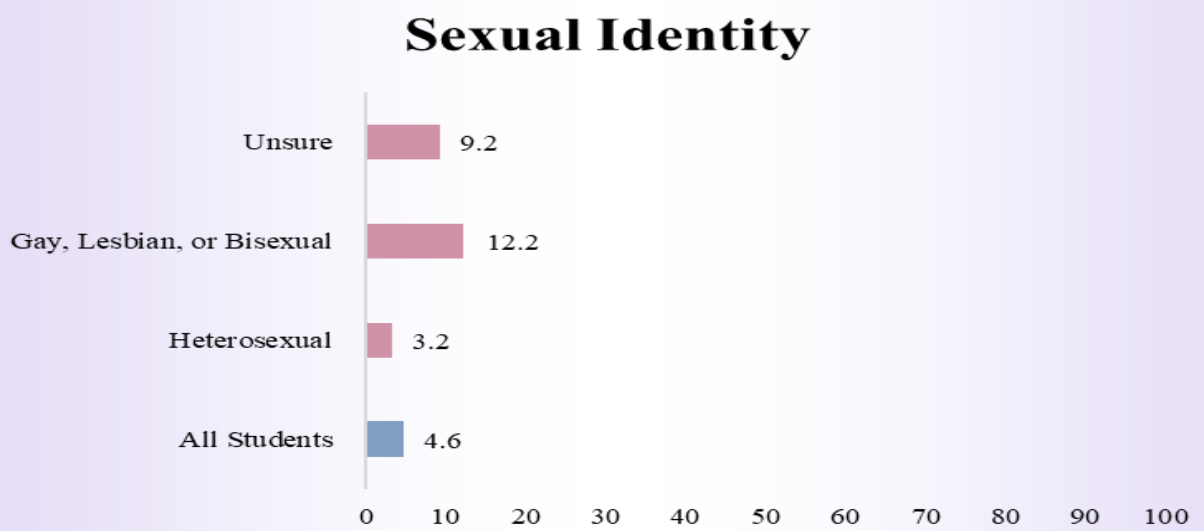
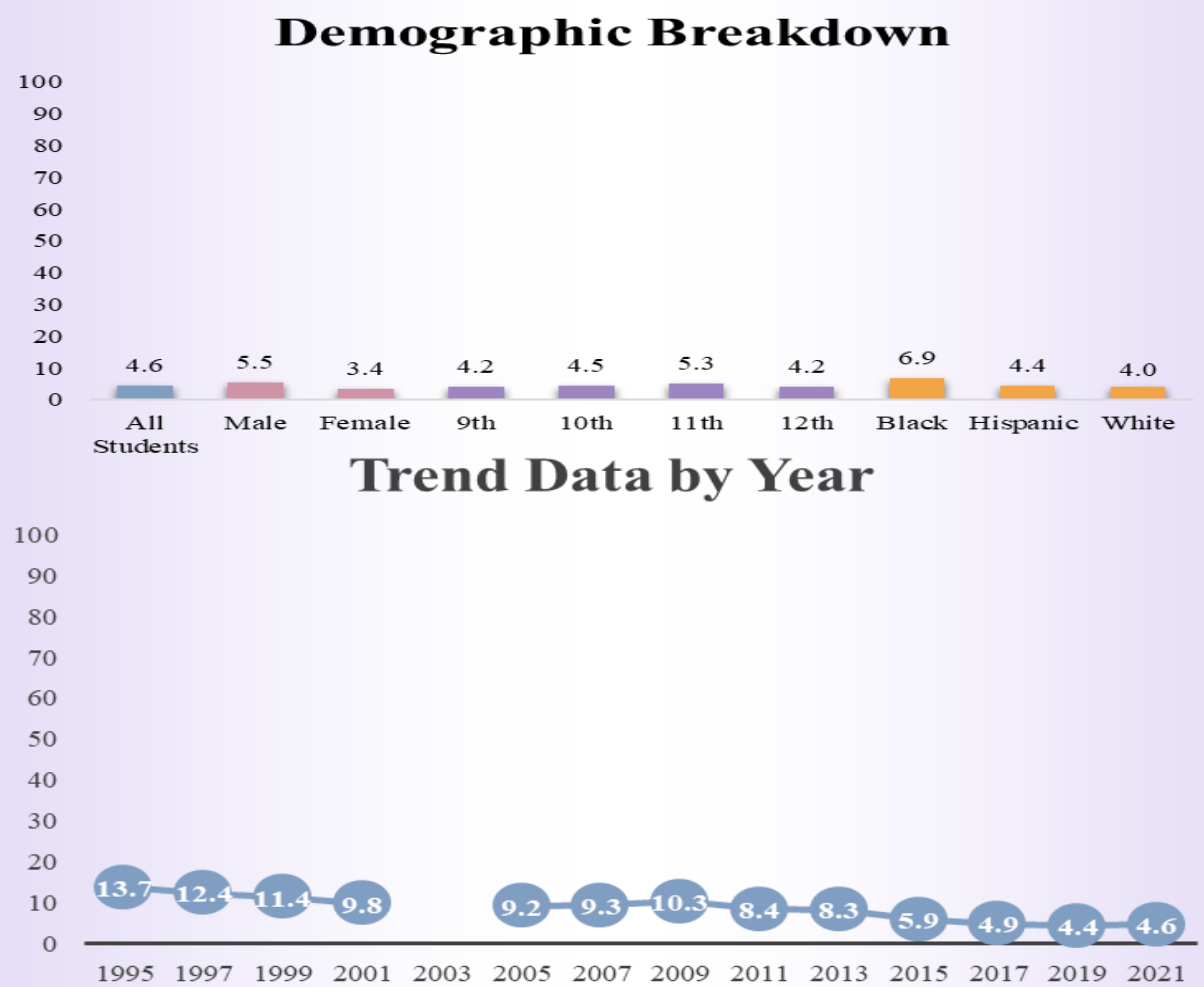


Sexual Identity



Sexual Intercourse Before Age 13

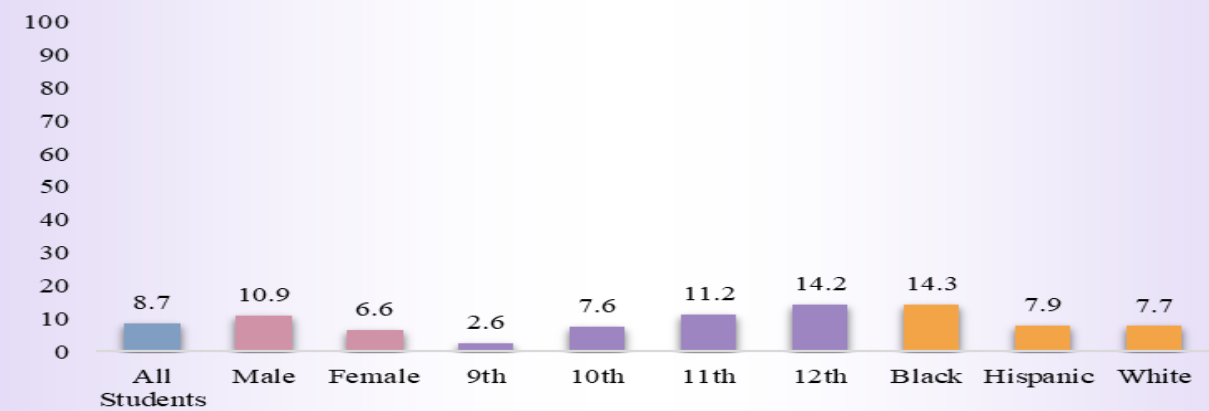
Statewide, 4.6 percent of students had sexual intercourse for the first time before age 13.



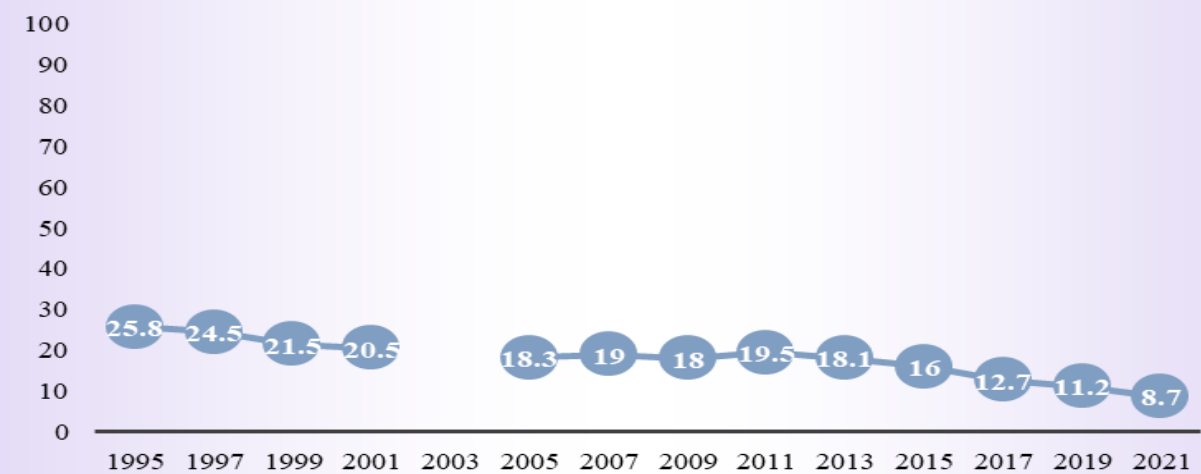
Multiple Sexual Partners

Among Arkansas high school students, 8.7 percent had sexual intercourse with four or more persons during their life.

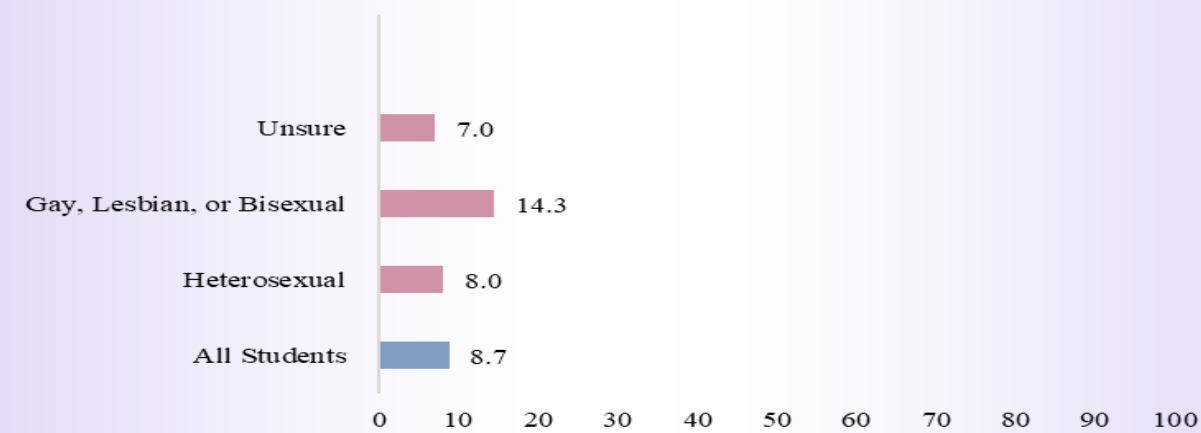
Demographic Breakdown



Trend Data by Year



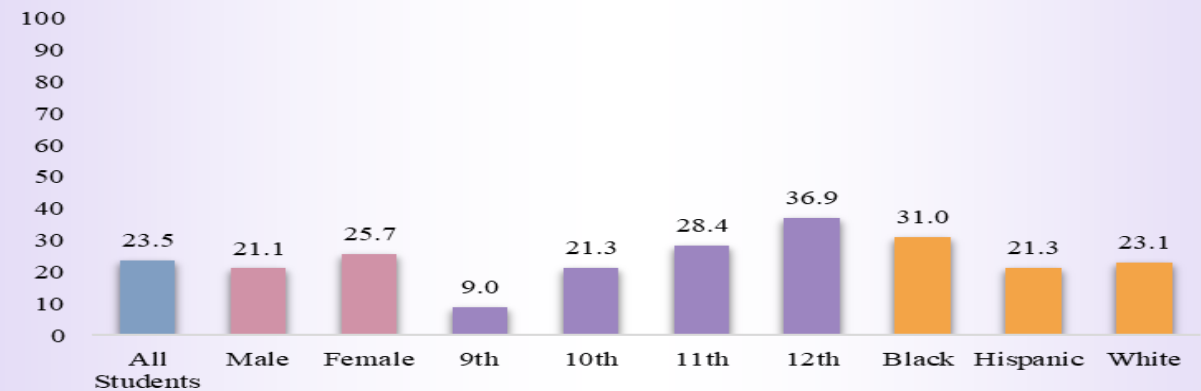
Sexual Identity



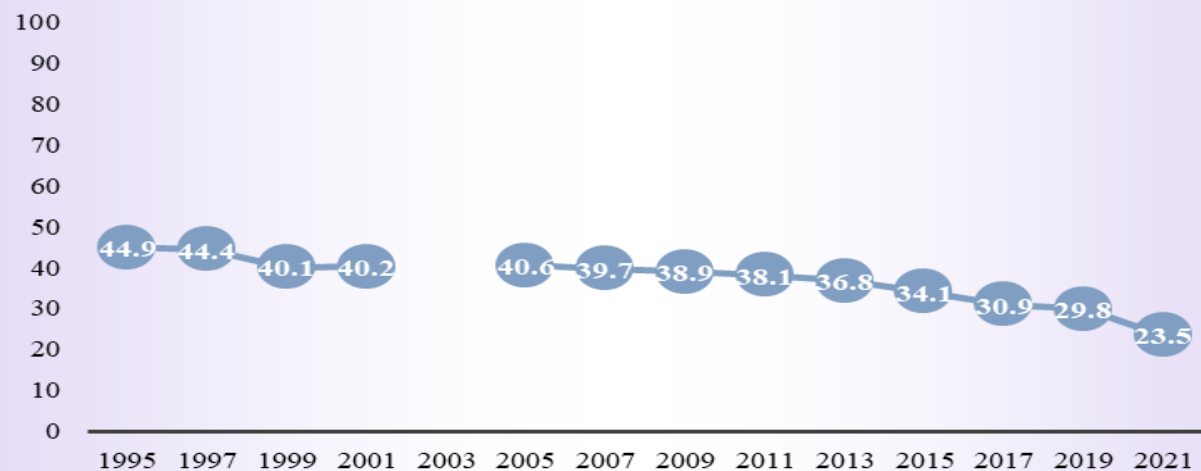
Currently Sexually Active

During the past three months, 23.5 percent of students had sexual intercourse with one or more people.

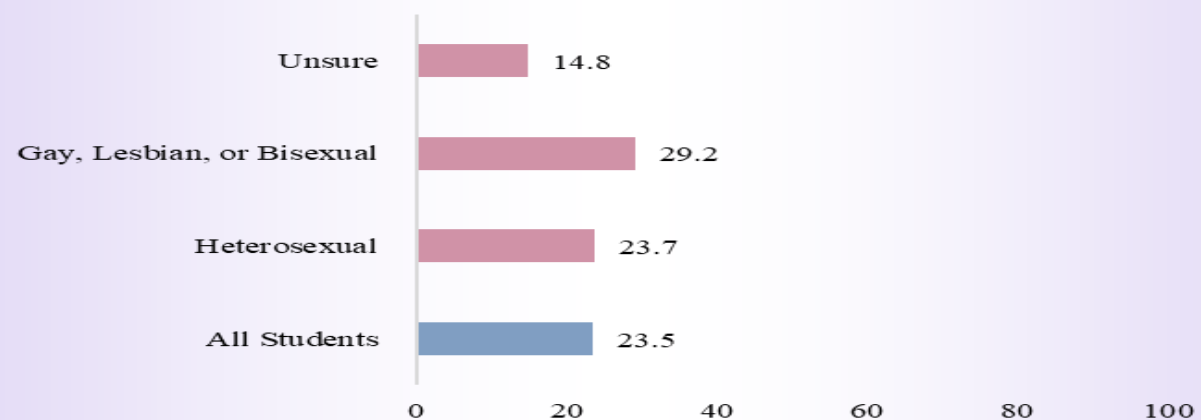
Demographic Breakdown



Trend Data by Year



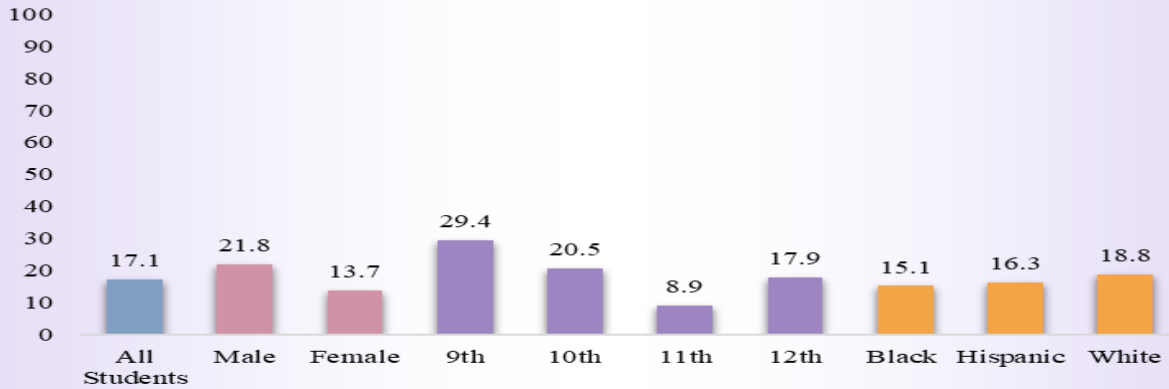
Sexual Identity



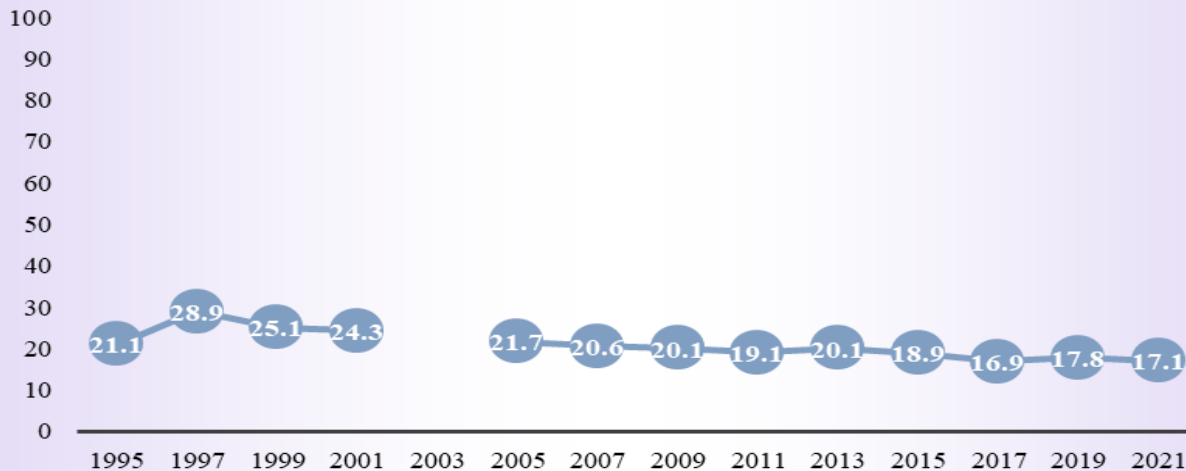
## Drank Alcohol or Used Drugs Before Last Sexual Intercourse

Among students who had sexual intercourse over the past three months, 17.1 percent drank alcohol or used drugs before last sexual intercourse.

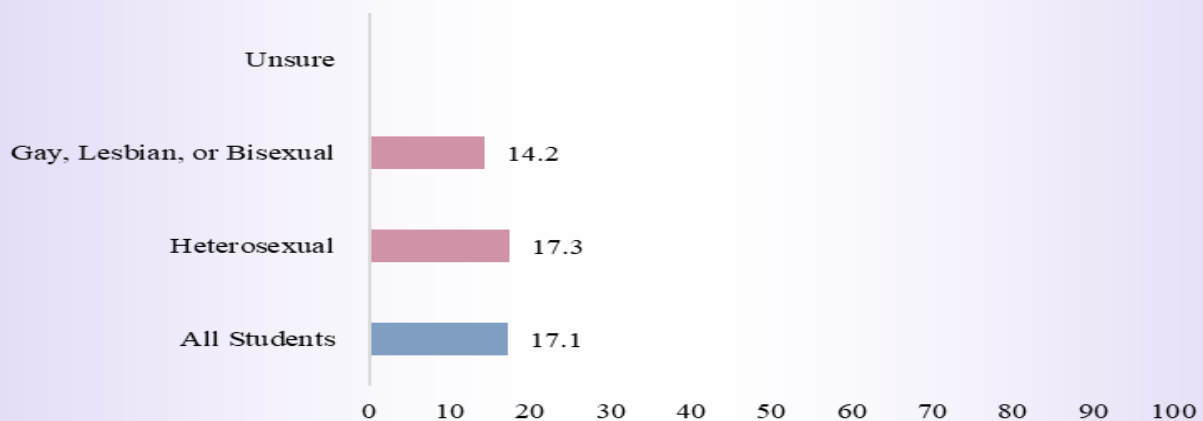
### Demographic Breakdown



### Trend Data by Year



### Sexual Identity

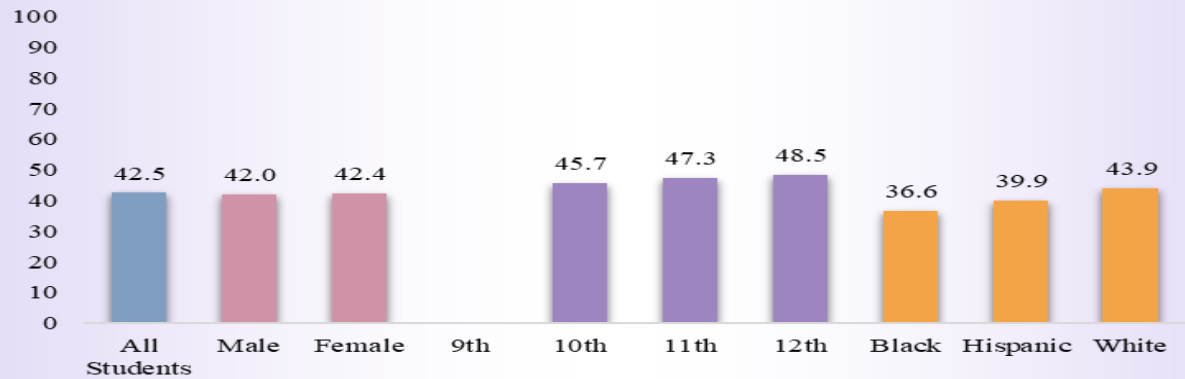




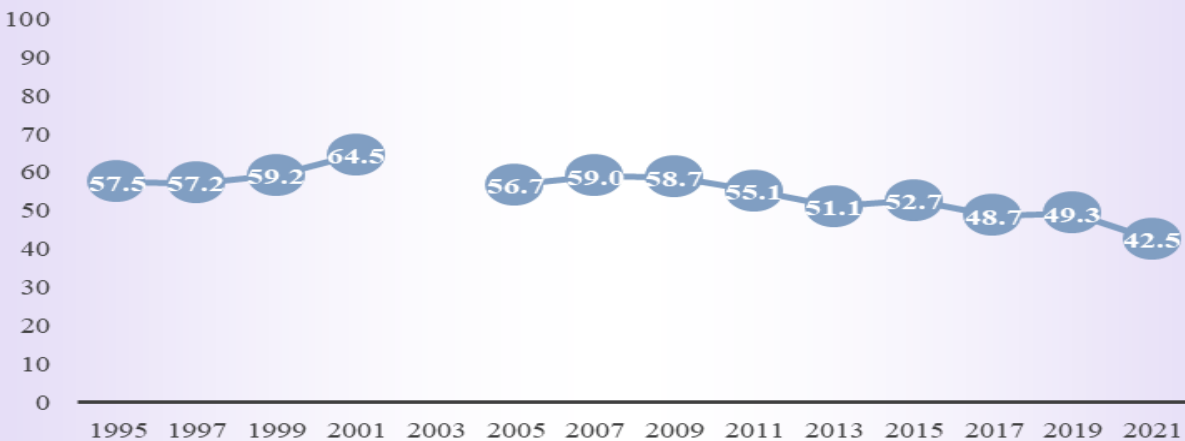
Condom Use

Among students who were sexually active, 42.5 percent used a condom during last sexual intercourse.

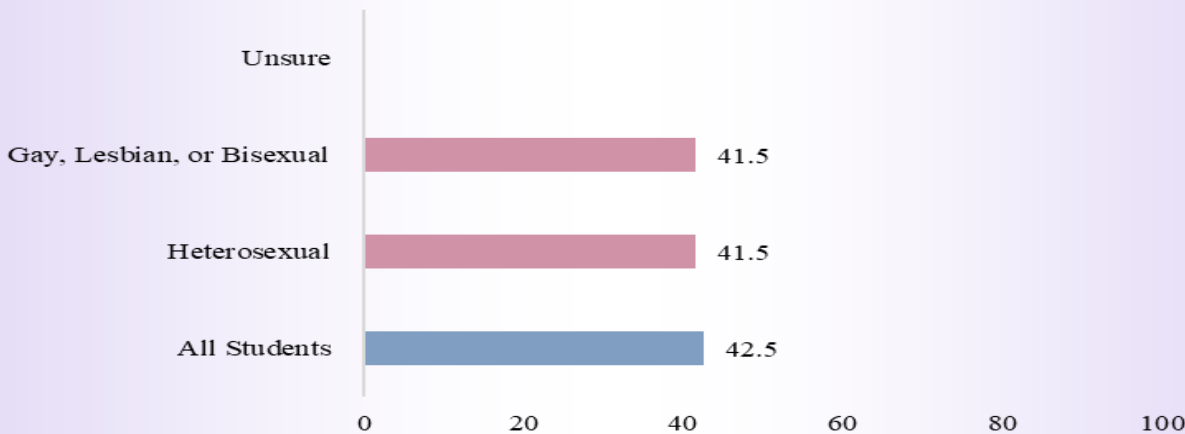
Demographic Breakdown



Trend Data by Year

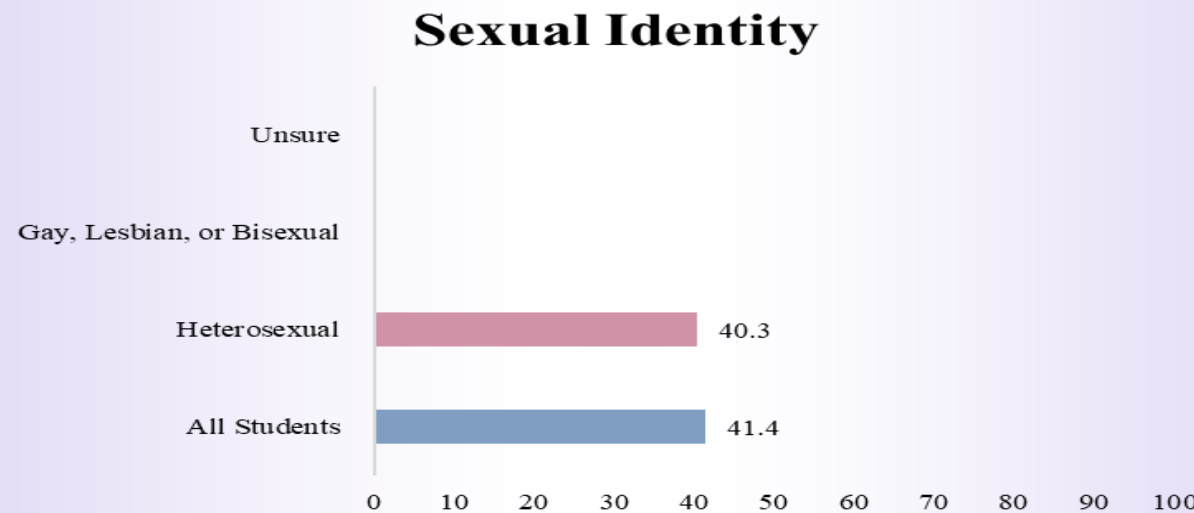
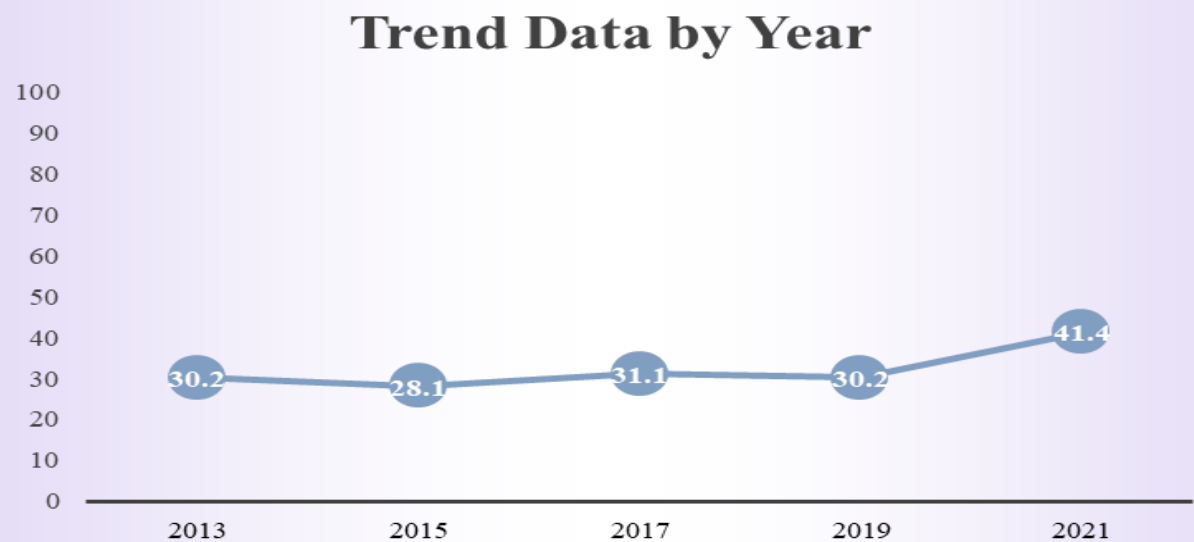
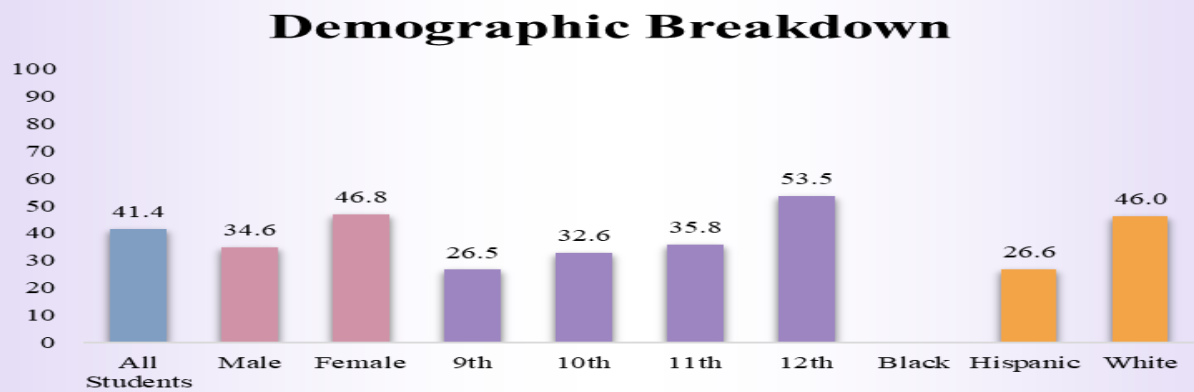


Sexual Identity



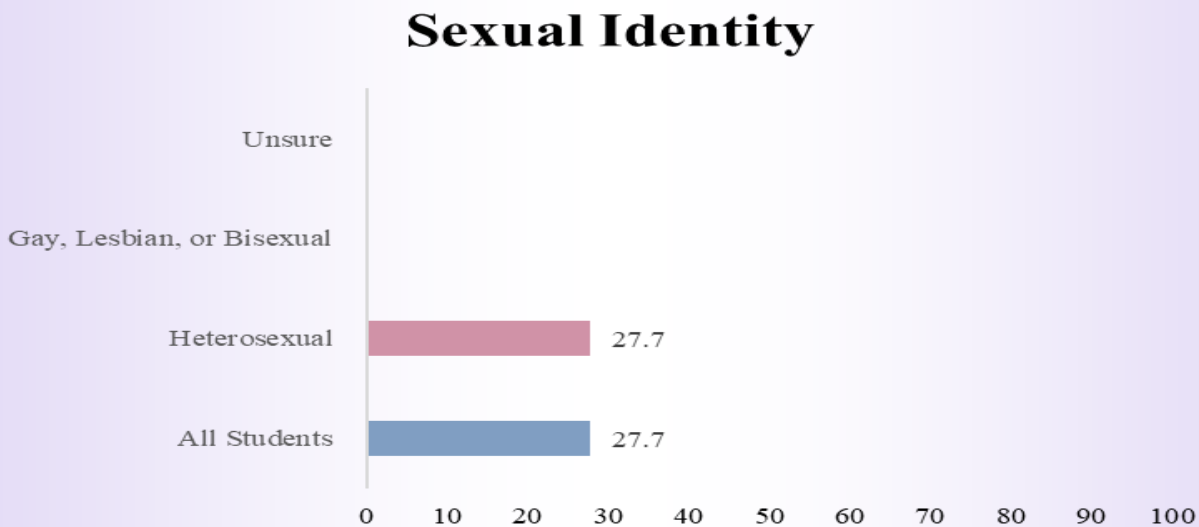
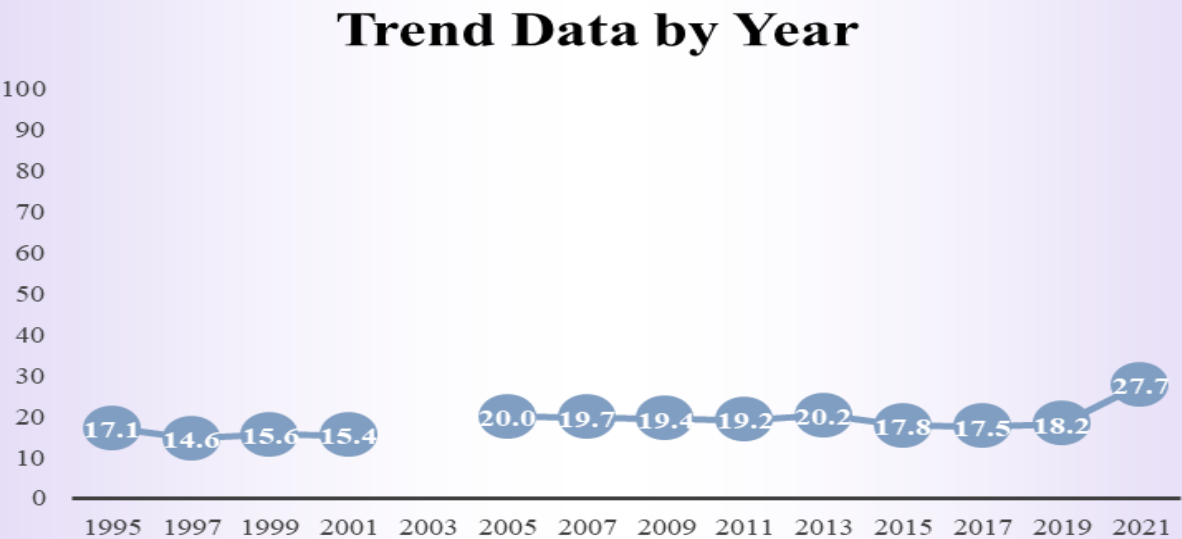
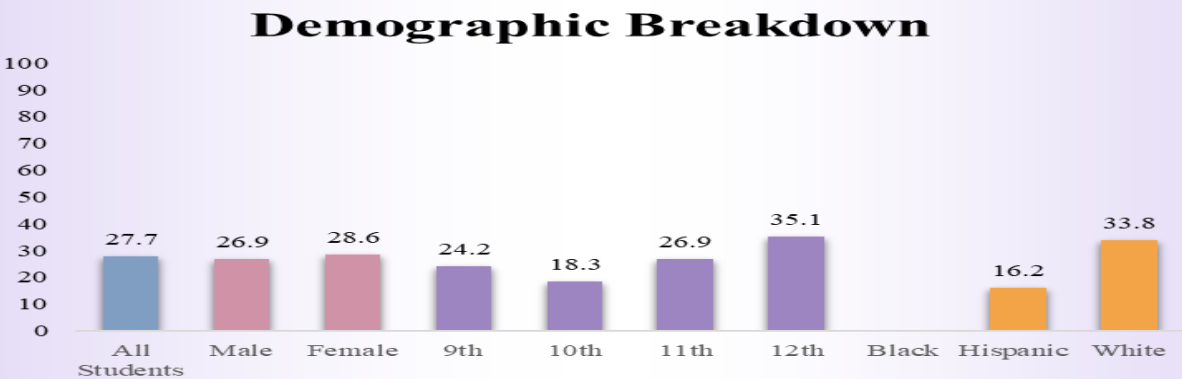
Contraceptive Use

Among currently sexually active students, 41.4 percent used birth control pills; an IUD or implant; or a shot, patch, or birth control ring to prevent pregnancy before last sexual intercourse.



Birth Control Pill Use

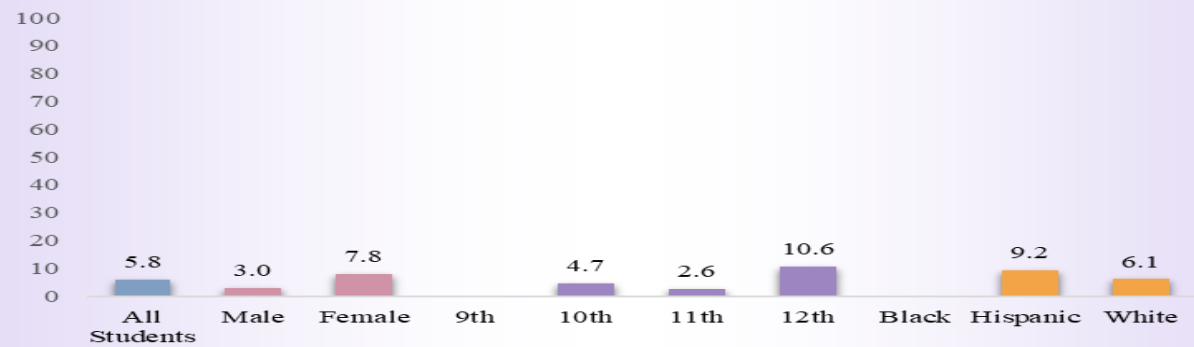
Among currently sexually active students, 27.7 percent use birth control pills to prevent pregnancy before last sexual intercourse.



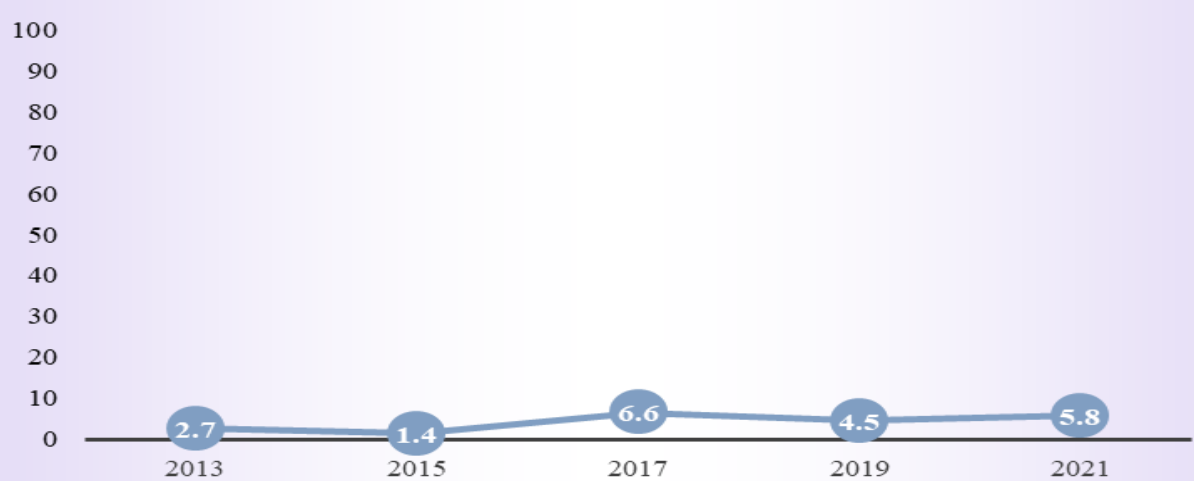
Long-Acting Contraceptive Use

Among currently sexually active students, 5.8 percent currently used an IUD (such as, Skyla or Kyleena) or implant (such as, Implanon or Nexplanon).

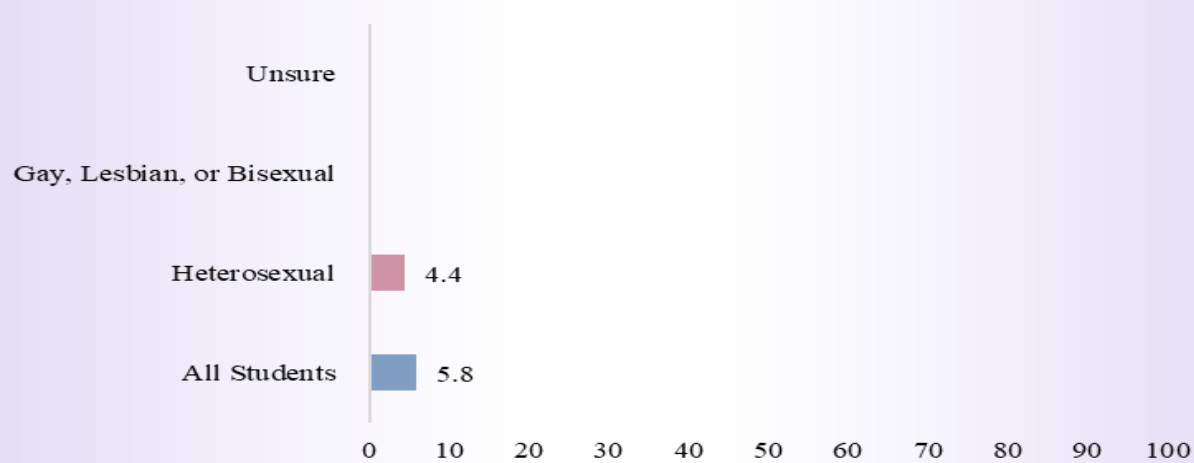
Demographic Breakdown



Trend Data by Year

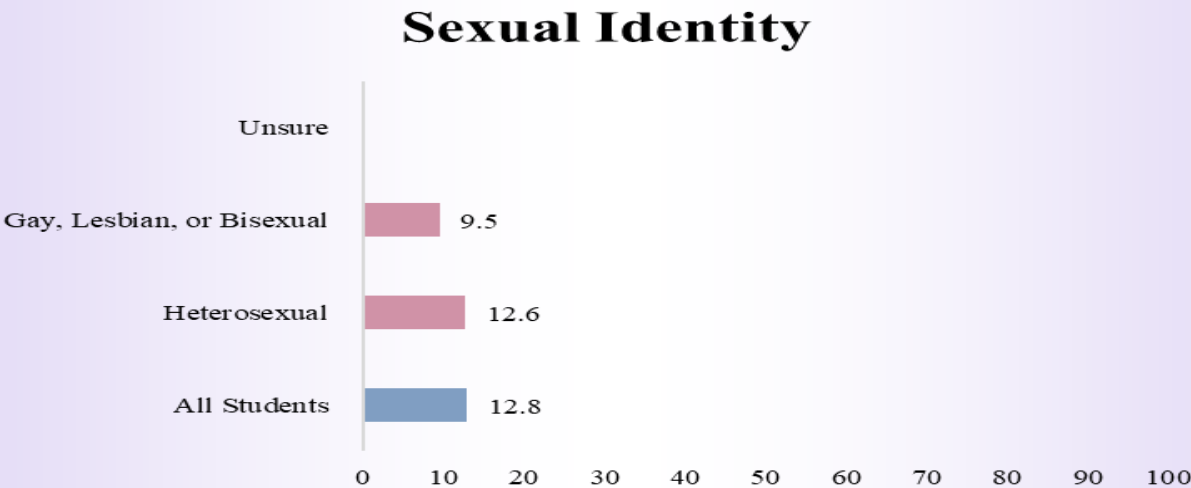
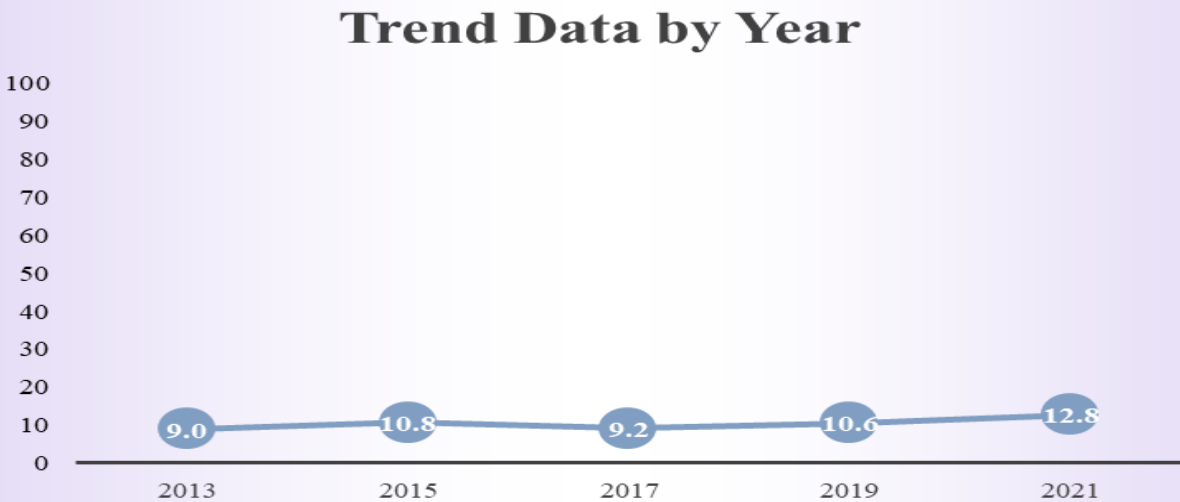
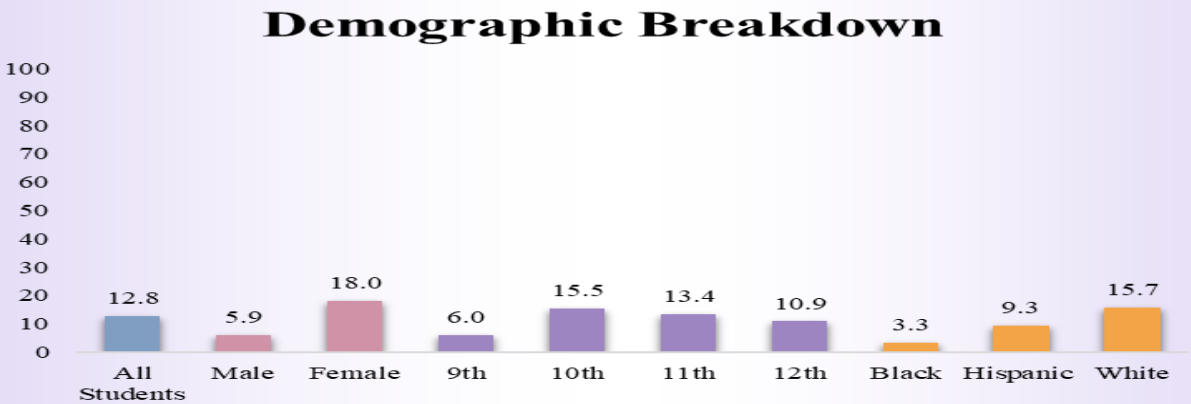


Sexual Identity



Dual Contraceptive Method

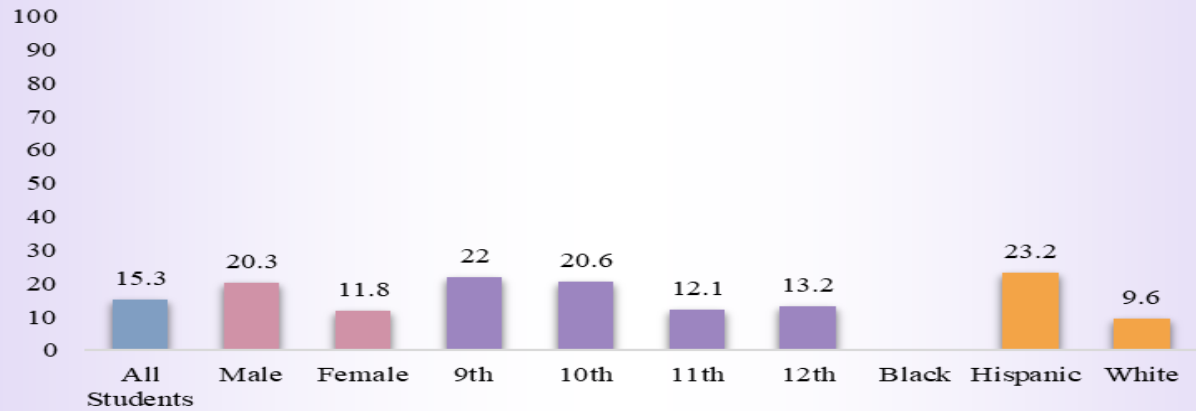
Among currently sexually active students, 12.8 percent used both a condom during last sexual intercourse and Birth Control Pills; an IUD or Implant; or a Shot, Patch, or Birth Control Ring before last sexual intercourse.



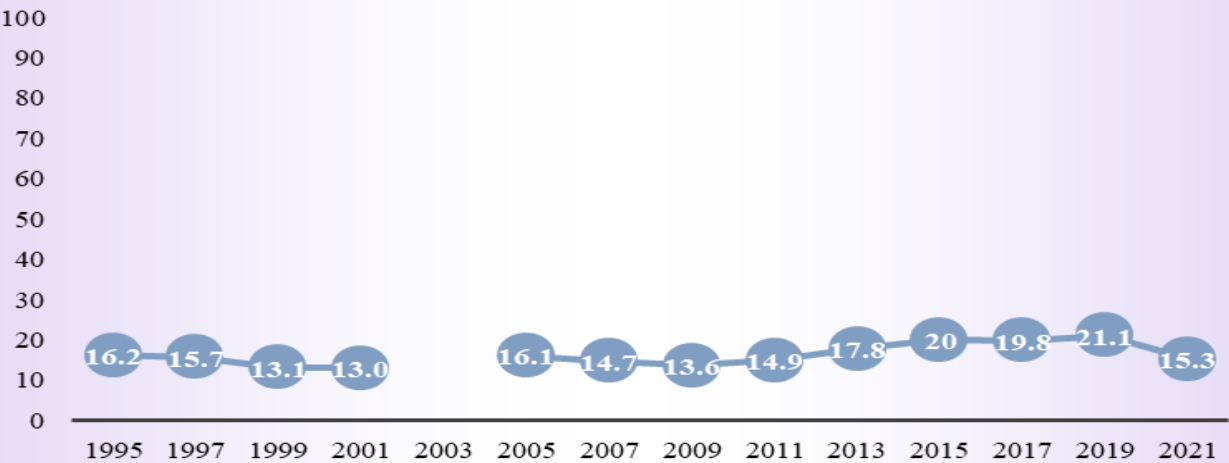
No Method Used to Prevent Pregnancy

Among currently sexually active students, 15.3 percent used no method to prevent pregnancy before last sexual intercourse.

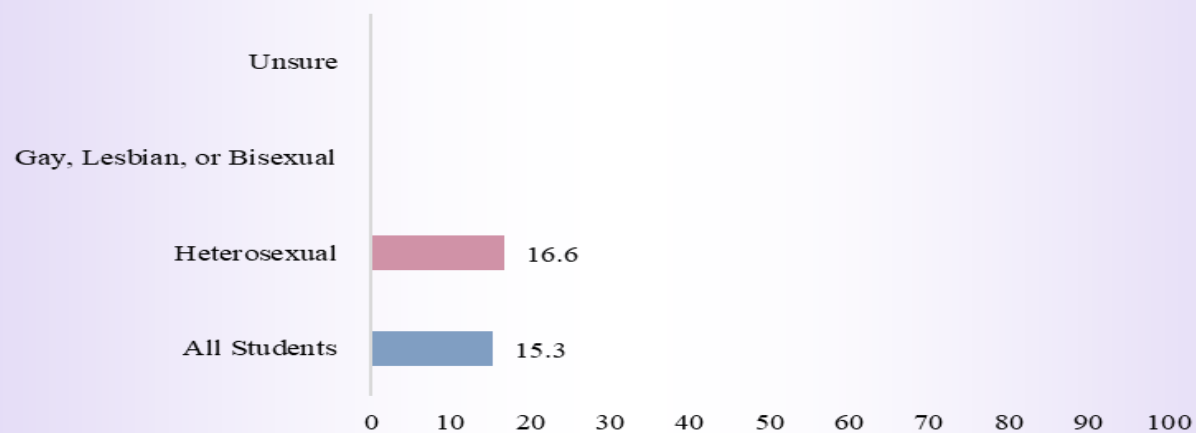
Demographic Breakdown



Trend Data by Year



Sexual Identity



## **Other Behaviors: Sexual Behaviors**

### **QUESTIONS:**

87. Have you ever been tested for HIV, the virus that causes AIDS? (Do not count tests done if you donated blood.)

88. During the past 12 months, have you been tested for a sexually transmitted disease (STD) other than HIV, such as chlamydia or gonorrhea?

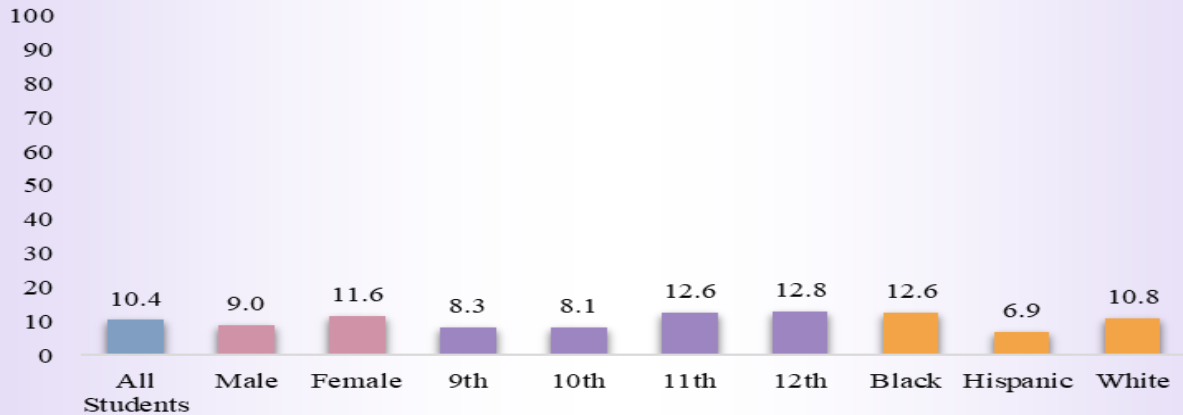
### **RATIONALE:**

These questions measure whether high school students have ever been tested for HIV and if they have been tested for an STD during the 12 months before the survey. Because adolescents and young people contract HIV and other STDs at high rates,(185-187) national recommendations and clinical guidelines suggest HIV testing and regular STD testing for sexually active young people. (188-191) HIV testing is an integral part of the National HIV/AIDS Strategy for the United States, and routine testing is one of the most important strategies recommended for reducing the spread of HIV and improving the health outcomes for those already infected. (189,190) State and local education agencies and schools are essential partners in this effort. In particular, schools have a critical role to play in facilitating delivery of HIV and STD prevention for adolescents.(193,194) State and local data on HIV and STD testing will help agencies examine local trends in testing behaviors, identify disparities in testing, and determine whether high risk youth are being tested.(193,194) In 2019, 9% of high school students nationwide had ever tested for HIV.(195) The percentage of high school students who have ever been tested for HIV did not change from 2005–2011 (12%–13%), but significantly decreased from 2011–2019 (13%–9%).(195) In 2019, 9% of high school students had been tested for an STD during the 12 months before the survey.(195)

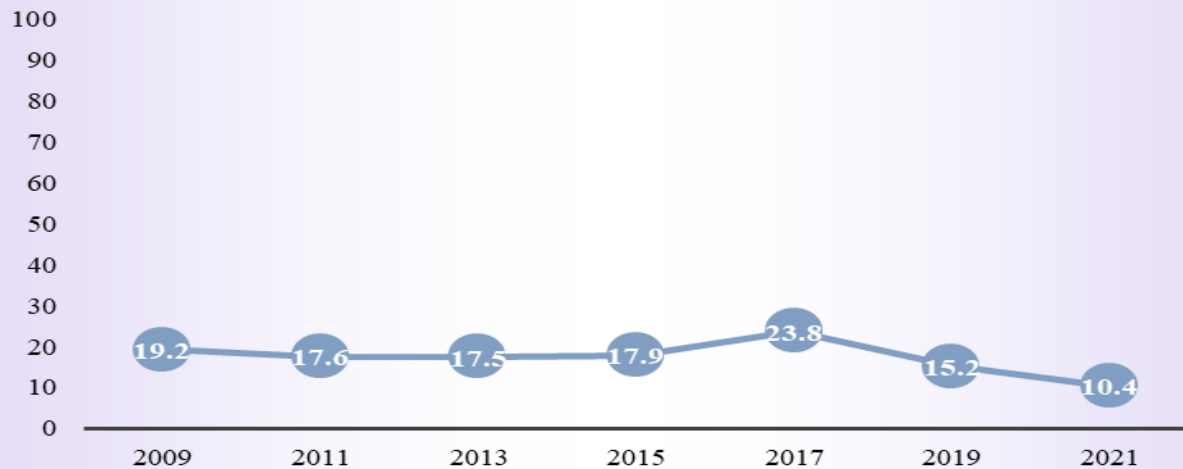
## Tested for Human Immunodeficiency Virus (HIV)

Statewide, 10.4 percent of students were ever tested for Human Immunodeficiency Virus (HIV) (not counting tests done if they donated blood).

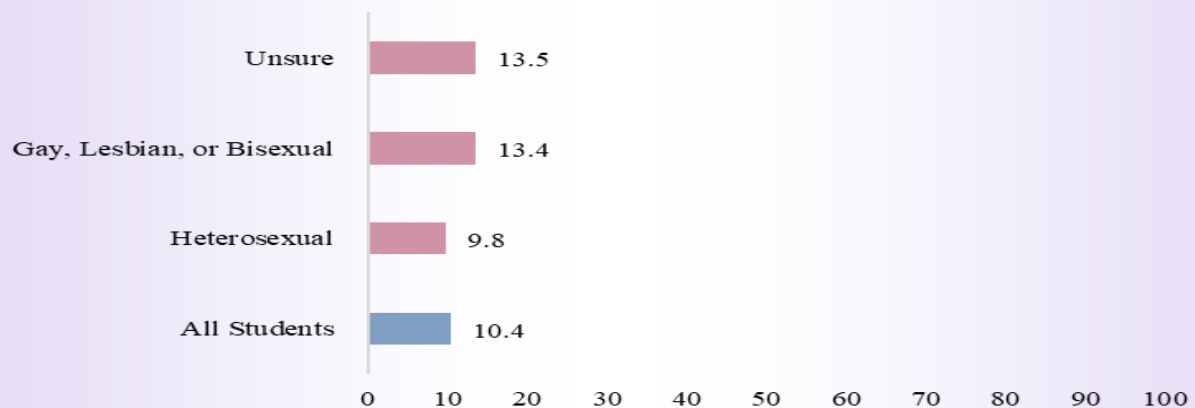
### Demographic Breakdown



### Trend Data by Year



### Sexual Identity

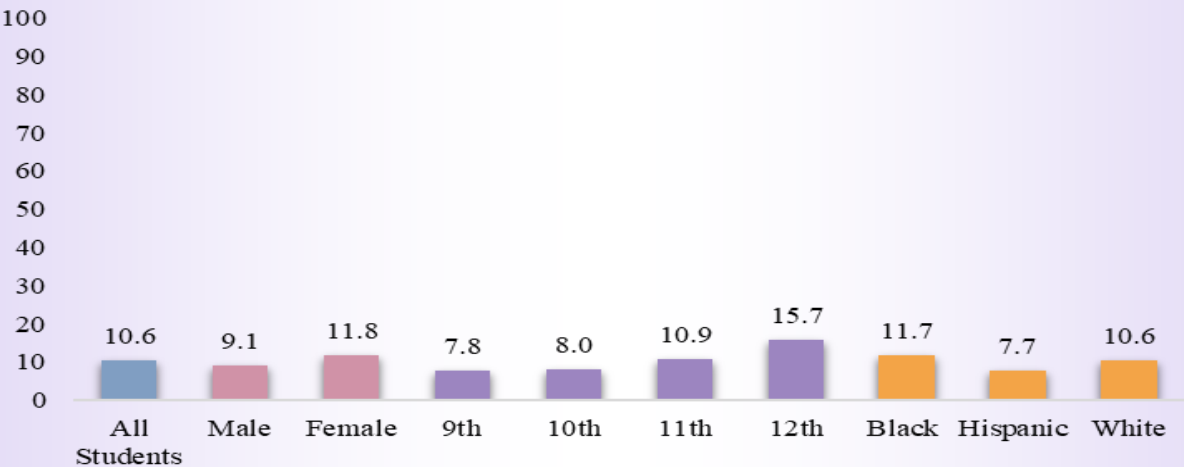




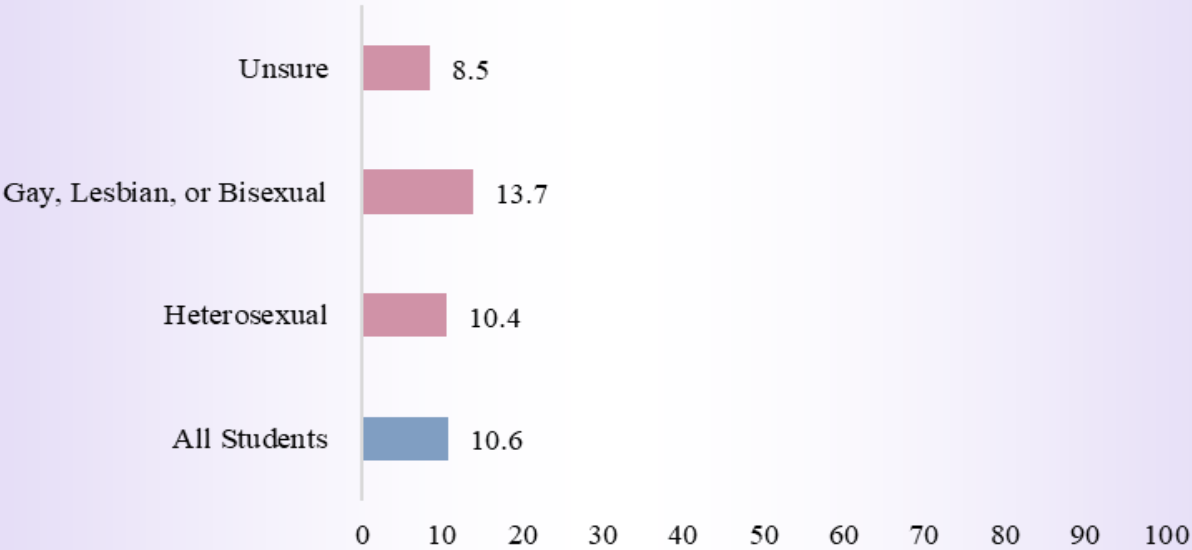
Tested for Sexually Transmitted Diseases (STDs)

Statewide, 10.6 percent of students were ever tested for a Sexually Transmitted Disease (STD) (not counting if they donated blood).

Demographic Breakdown



Sexual Identity



## **Dietary Behaviors: Body Weight**

### **QUESTIONS:**

6. How tall are you without your shoes on?
7. How much do you weigh without your shoes on?
71. How do you describe your weight?

### **RATIONALE:**

These questions measure self-reported height and weight and perceived body weight. Data on self-reported height and weight are used to calculate body mass index (BMI) and determine the corresponding BMI percentile for adolescents. BMI percentile takes into account that young people are still growing and are growing at different rates depending on their age and sex. CDC recommends using BMI percentile when assessing weight status for youth ages 2–20. Although BMI calculated from self-reported height and weight underestimates the prevalence of obesity compared to BMI calculated from measured height and weight,(121,122) self-reported height and weight are useful for tracking BMI trends over time.(123-125)

Children with obesity are at higher risk of having other chronic health conditions and diseases that influence physical health. These include asthma, sleep apnea, bone and joint problems, type 2 diabetes, and risk factors for heart disease.(126-128) Obesity has psychological consequences as well; youth with obesity are bullied and teased more than their normal weight peers and are more likely to suffer from social isolation, depression, and lower self-esteem.(129,130) In the long term, youth with obesity are more likely to have obesity as an adult.(131,132)

Continued monitoring of height and weight data through the YRBS provides information at the national, state, and local levels that can be used to track progress in efforts to curb the spread of obesity.(133) The YRBS is the only survey that provides obesity data among high school students that is representative at the state and local level. Nationwide in 2019, 16% of high school students had obesity and 16% were overweight.(133) During 1999–2019, significant linear increases occurred in the percentage of students with obesity (11%–16%) and who were overweight. (14%–16%)

### **QUESTION:**

72. Which of the following are you trying to do about your weight?

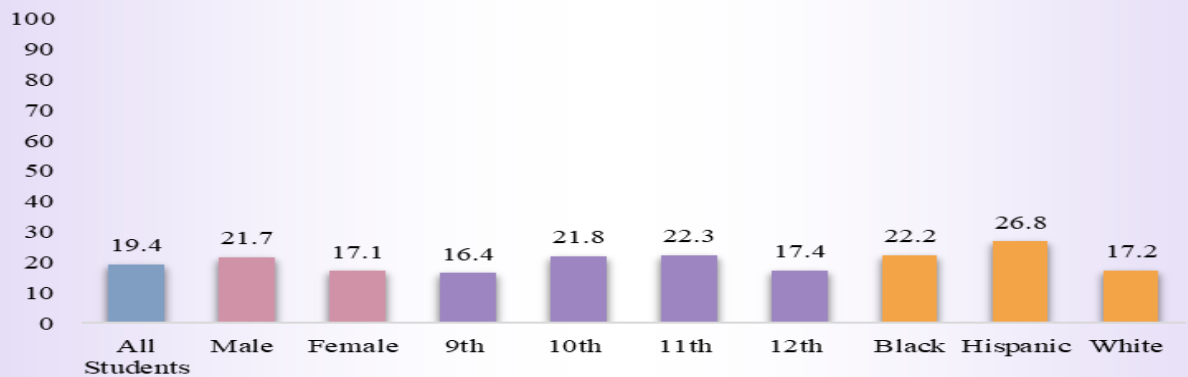
**RATIONALE:** This question measures weight goals. The prevention of childhood obesity involves maintaining a healthy weight while protecting overall health, growth and development, and nutritional status.(134) The Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity recommend that overweight adolescents (85th percentile < BMI < 95th percentile) achieve a healthy weight by maintaining their current weight while stature increases; adolescents with obesity (BMI >95th percentile) can pursue weight loss that is not to exceed an average of 2 pounds per week. (135) The goals of obesity prevention in children and adolescents also include the avoidance of potentially harmful weight concern and restrictive eating behaviors.(136)

For these reasons, understanding adolescents' weight goals, both independently and relative to weight status, is of public health importance.(135) Nationwide in 2019, 48% of high school students were trying to lose weight. The percentage of students who were trying to lose weight increased significantly during 1991–2019 (42%–48%).(137)

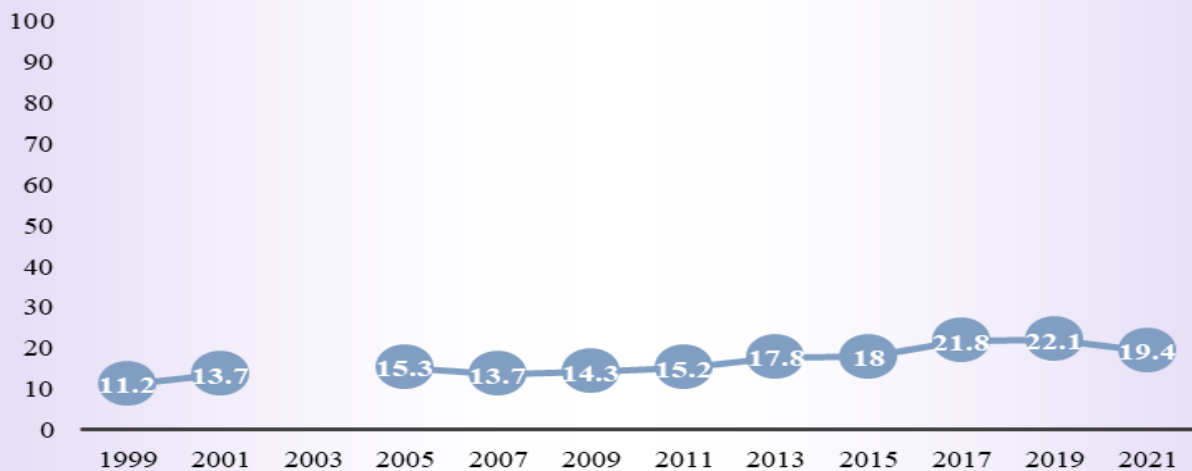
Obesity

Statewide, 19.4 percent of students were obese (i.e., at or above the 95th percentile for body mass index, by age and sex).

Demographic Breakdown



Trend Data by Year



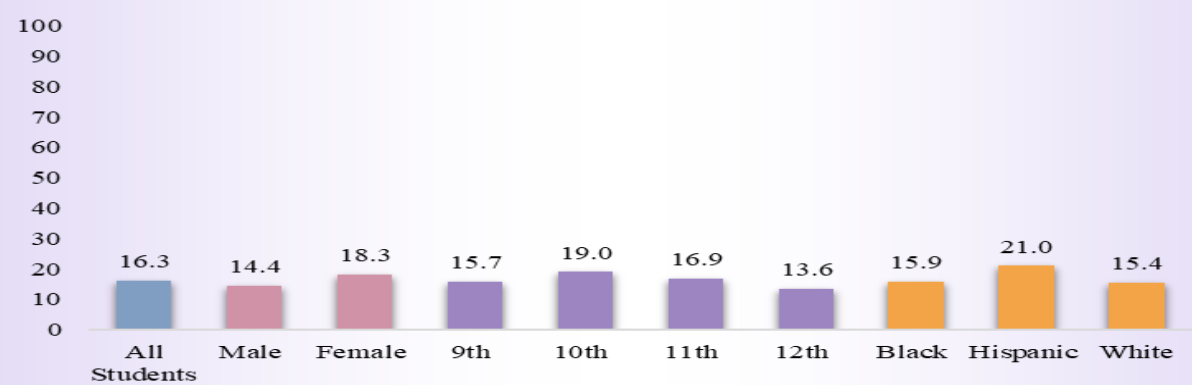
Sexual Identity



Overweight

Statewide, 16.3 percent of students were overweight (i.e., at or above the 85th percentile but below the 95th percentile for body mass index, by age and sex).

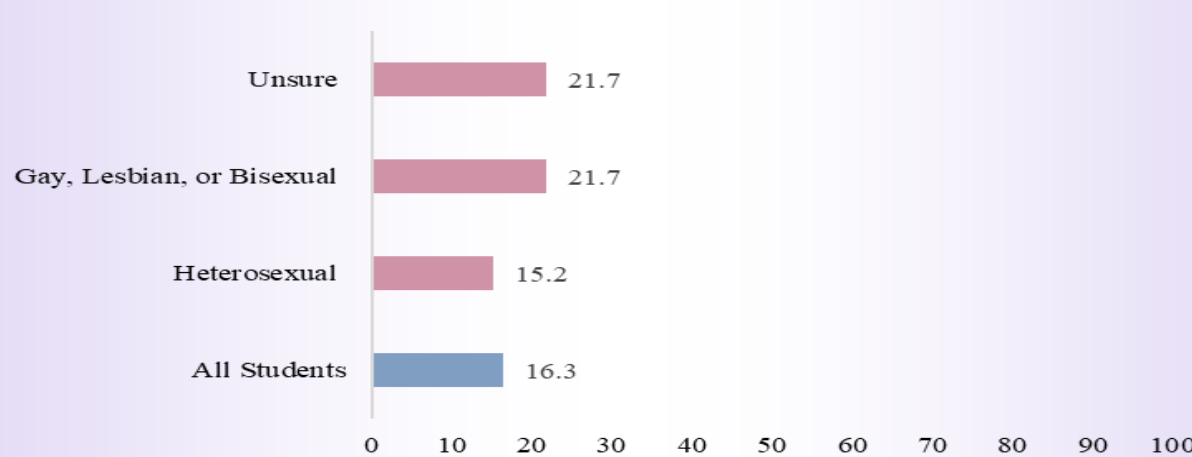
Demographic Breakdown



Trend Data by Year

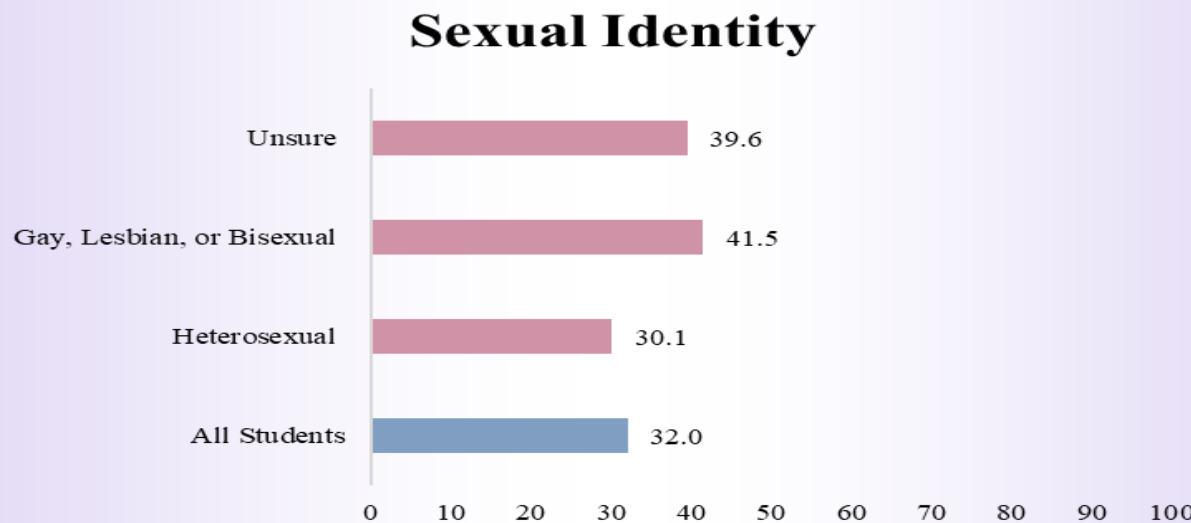
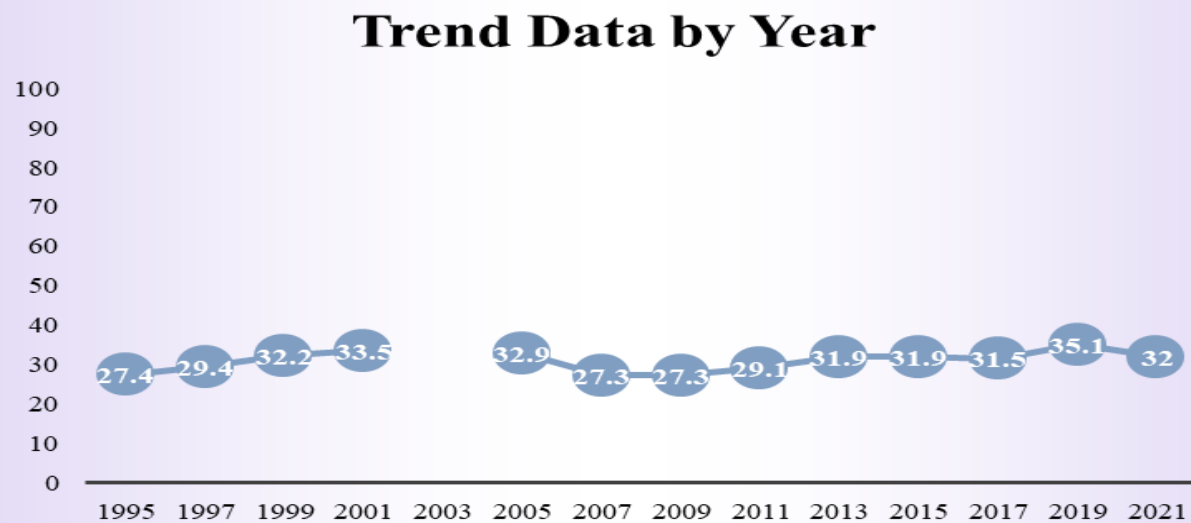
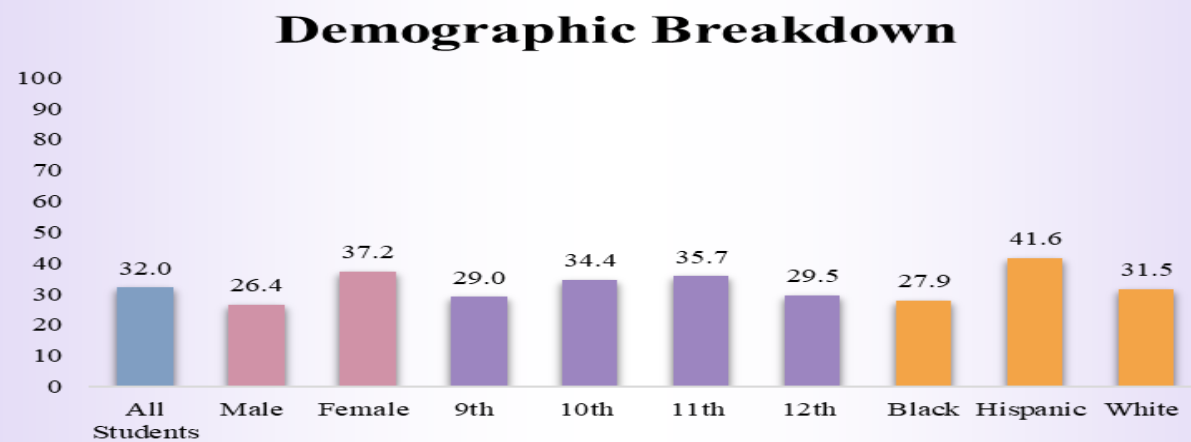


Sexual Identity



Described Themselves as Overweight

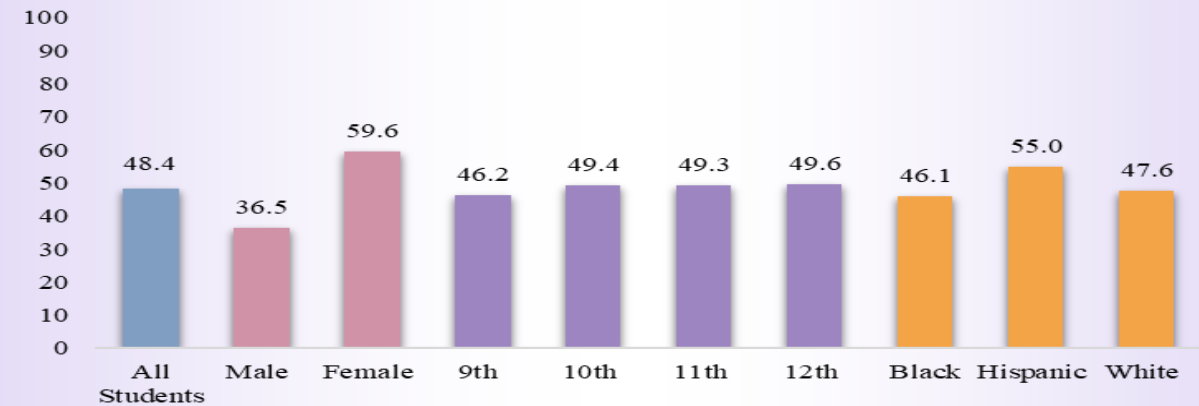
Statewide, 32.0 percent of students described themselves as slightly overweight or very overweight.



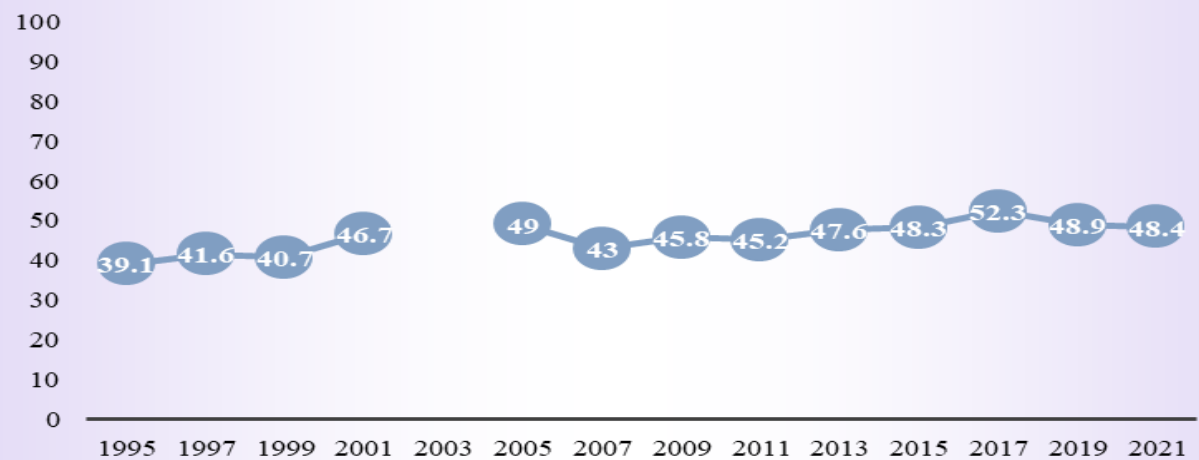
Were Trying to Loose Weight

Statewide, 48.4 percent of students were trying to loose weight.

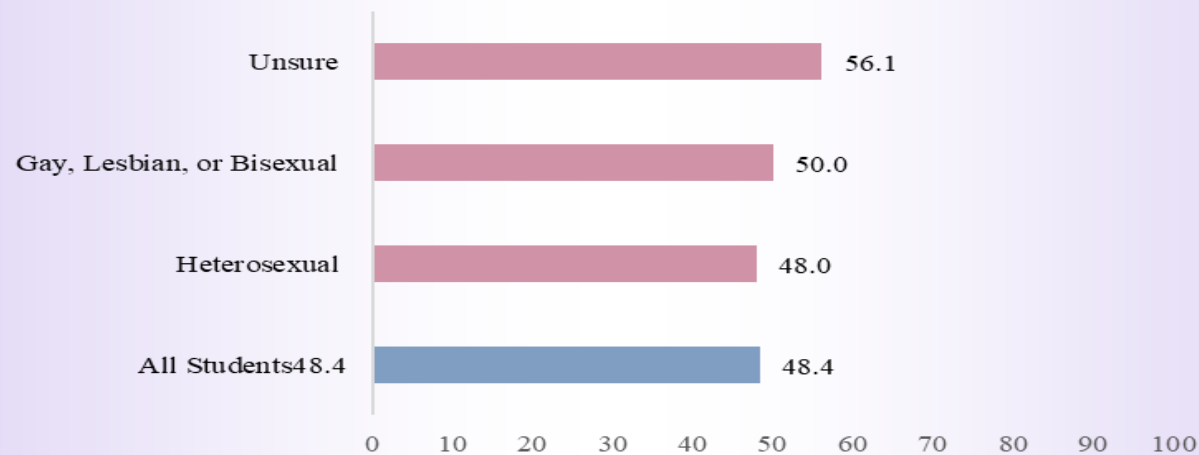
Demographic Breakdown



Trend Data by Year



Sexual Identity



## **Dietary Behaviors: Nutrition**

### **QUESTIONS:**

73. During the past 7 days, how many times did you drink 100% fruit juices such as orange juice, apple juice, or grape juice? (Do not count punch, Kool-Aid, sports drinks, or other fruit-flavored drinks.)
74. During the past 7 days, how many times did you eat fruit? (Do not count fruit juice.)
75. During the past 7 days, how many times did you eat green salad?
76. During the past 7 days, how many times did you eat potatoes? (Do not count french fries, fried potatoes, or potato chips.)
77. During the past 7 days, how many times did you eat carrots?
78. During the past 7 days, how many times did you eat other vegetables? (Do not count green salad, potatoes, or carrots.)
79. During the past 7 days, how many times per day did you usually drink a can, bottle, or glass of soda or pop, such as Coke, Pepsi, or Sprite? (Do not count diet soda or diet pop.)
80. During the past 7 days, how many glasses of milk did you drink? (Count the milk you drank in a glass or cup, from a carton, or with cereal. Count the half pint of milk served at school as equal to one glass.)
81. During the past 7 days, on how many days did you eat breakfast?

### **RATIONALE:**

These questions measure dietary behaviors, including consumption of fruits, vegetables, beverages, and breakfast. The fruit and vegetable questions are similar to questions asked of adults on the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System 2009 survey questionnaire.(138) Fruits and vegetables are good sources of complex carbohydrates, fiber, vitamins, minerals, and other substances that are important for good health.(139) There is probable evidence to suggest that dietary patterns with higher intakes of fruits and vegetables are associated with a decreased risk for some types of cancer, cardiovascular disease, and stroke.(139,140) Although data are limited, an increased intake of fruits and vegetables appears to be associated with a decreased risk of being overweight.(139,141) However, most youth do not meet the recommendations for fruit and vegetable consumption.(142–144) In 2019, during the 7 days before the survey, 42% of high school students nationwide had eaten fruit or drunk 100% fruit juice less than one time per day and 41% of students had eaten vegetables less than one time per day.(145)



Although total sugar-sweetened beverage consumption has significantly decreased during the last decade, mainly due to the decrease in regular soda intake, the calorie intake from sugar sweetened beverages remain high.(146) Furthermore, sugar-sweetened beverages are a primary source of added sugars in the diet of U.S. children,(147) and contribute on average 132 kcal/day.(146) Consumption of sugar-sweetened beverages is associated with a less healthy diet, (148) increased risk of dental decay (12) and obesity among children, (150) and the development of metabolic syndrome and type 2 diabetes.(14) Nationwide in 2019, 15% of high school students had drunk a can, bottle, or glass of soda or pop (not counting diet soda or diet pop) one or more times per day during the 7 days before the survey.(145) The percentage of students who drank soda or pop one or more times per day decreased significantly during 2009–2019 (29%–15%).(145)

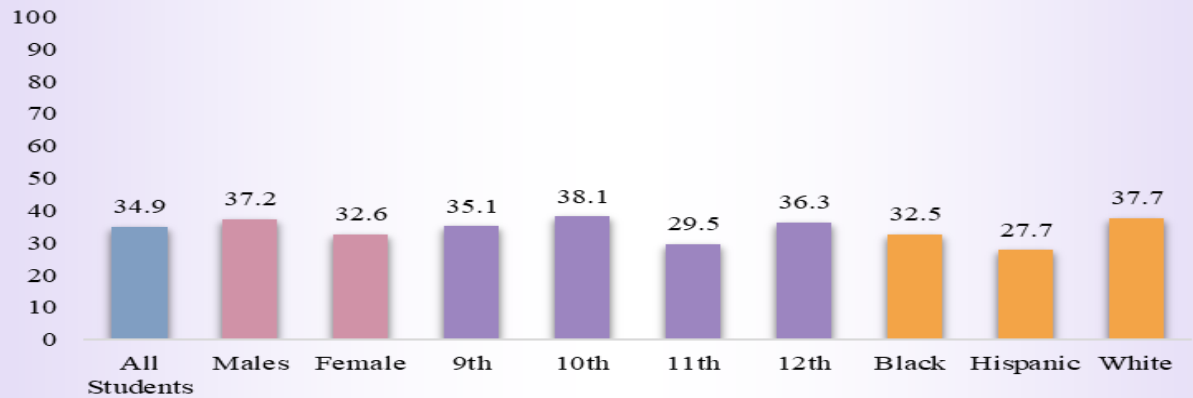
Milk is an important source of many nutrients, including calcium.(139) There is evidence that intake of milk and milk products is associated with bone health in children and adolescents and with a lower risk of cardiovascular disease and type 2 diabetes and with lower blood pressure in adults.(139) Although the recommended intake of milk and milk products is 3 cups per day for adolescents, most adolescents consume far less.(139,143) In 2019, 7% of high school students nationwide had drunk three or more glasses of milk per day.(152) The percentage of students who drank three or more glasses of milk decreased significantly during 1999–2011 (18%–15%) and then further decreased during 2011–2019 (15%–7%).(152)

Eating breakfast is associated with weight loss and weight loss maintenance,(139) improved nutrient intake,(139) and better cognitive function, academic performance, school attendance rates, psychosocial function, and mood. (153-156) In 2019, 17% of high school students nationwide did not eat breakfast on all 7 days before the survey.(145) The percentage of students who did not eat breakfast on all 7 days increased significantly during 2011–2019 (13%–17%).(145)

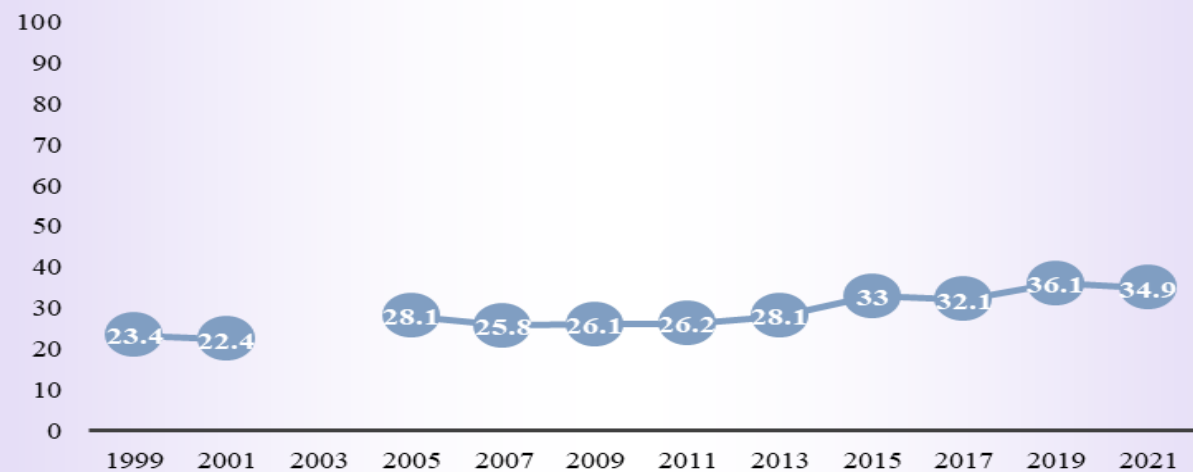
Fruit Juice Consumption

Statewide, 34.9 percent of students did not drink fruit juice during the past seven

Demographic Breakdown



Trend Data by Year



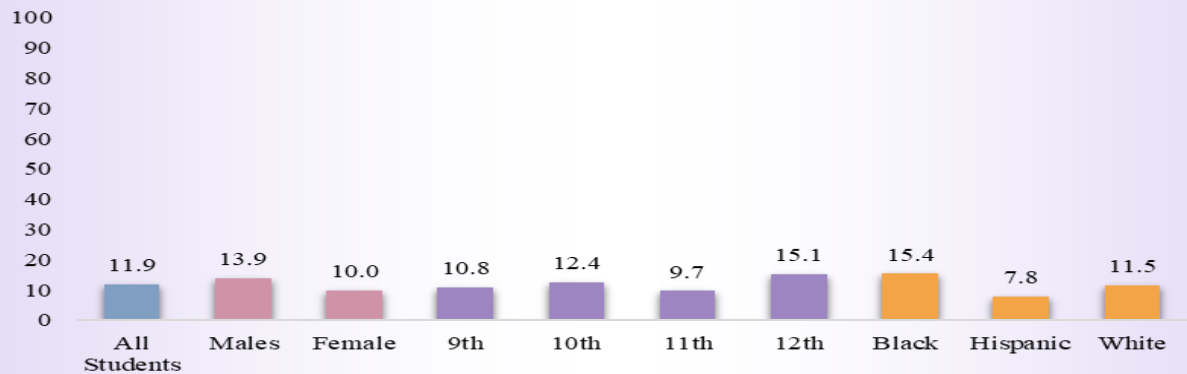
Sexual Identity



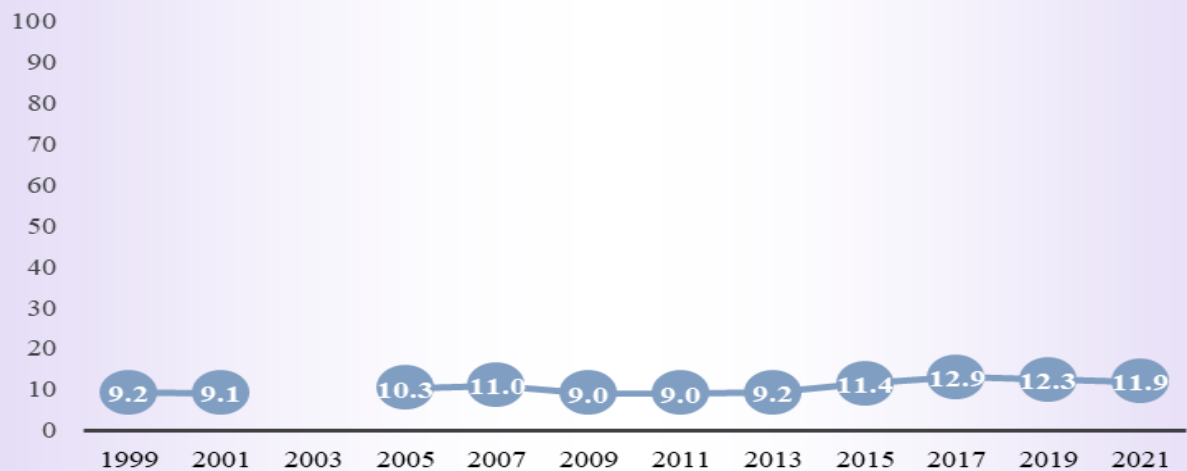
Fruit or Fruit Juices

Statewide, 11.9 percent of students did not eat or drink 100% fruit juice on any of the past seven days.

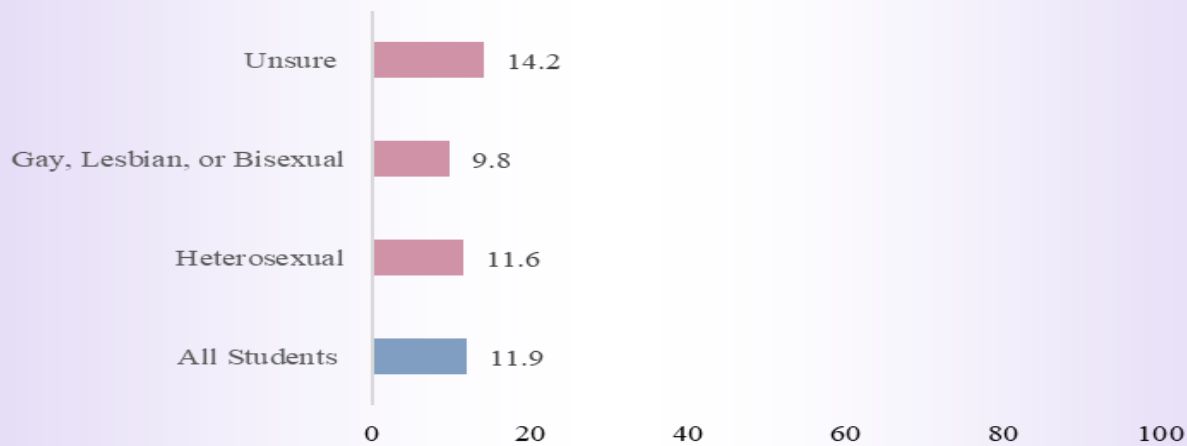
Demographic Breakdown



Trend Data by Year



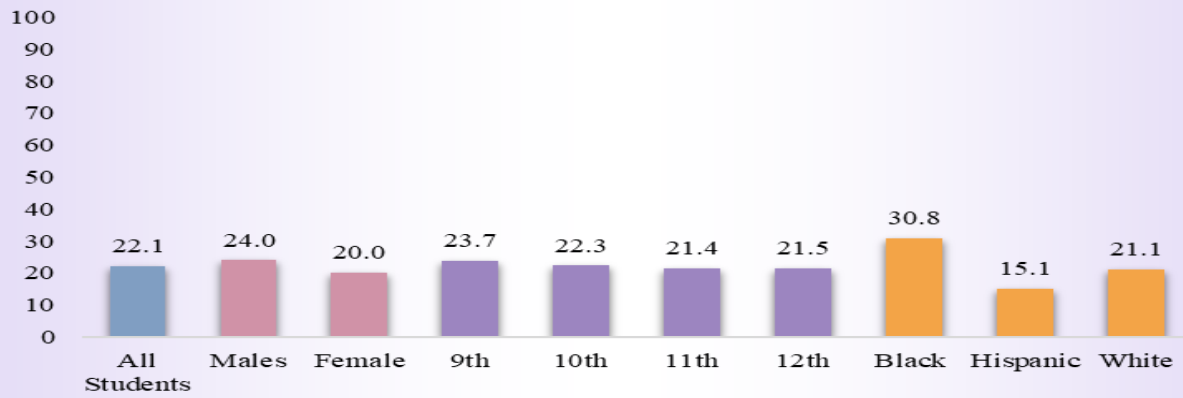
Sexual Identity



## Fruit Consumption

Statewide, 22.1 percent of students did not eat fruit on any of the past seven days.

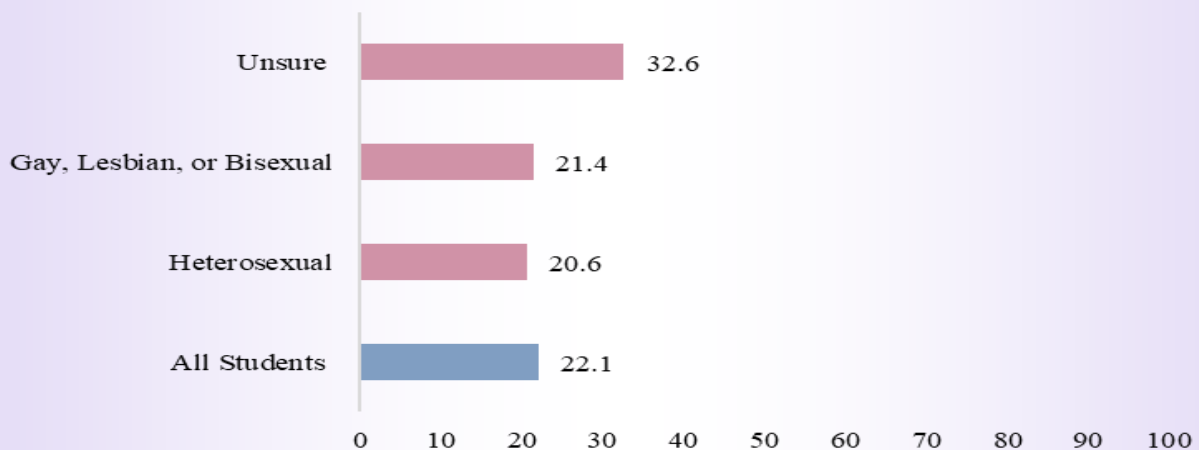
### Demographic Breakdown



### Trend Data by Year



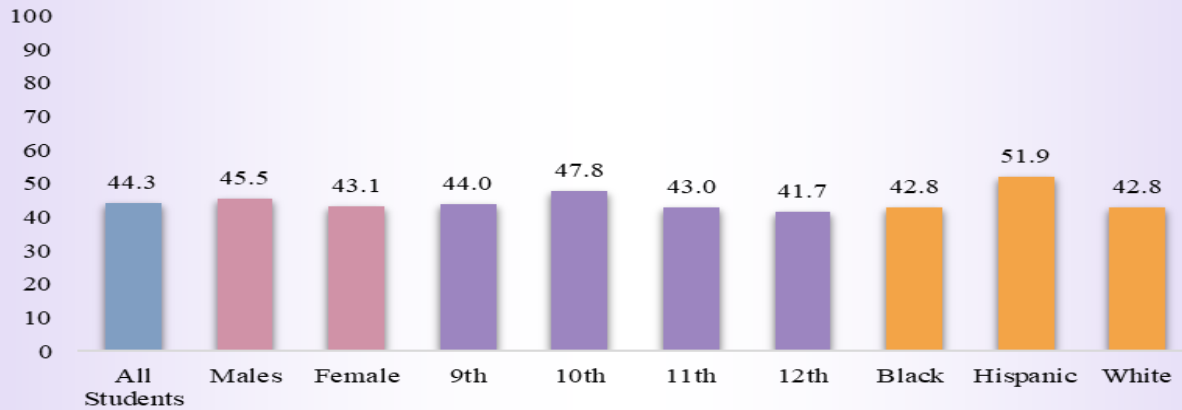
### Sexual Identity



## Fruit or Fruit Juices One or More Times Per Day

Statewide, 44.3 percent of students ate or drank fruit juice one or more times per day during the past seven days.

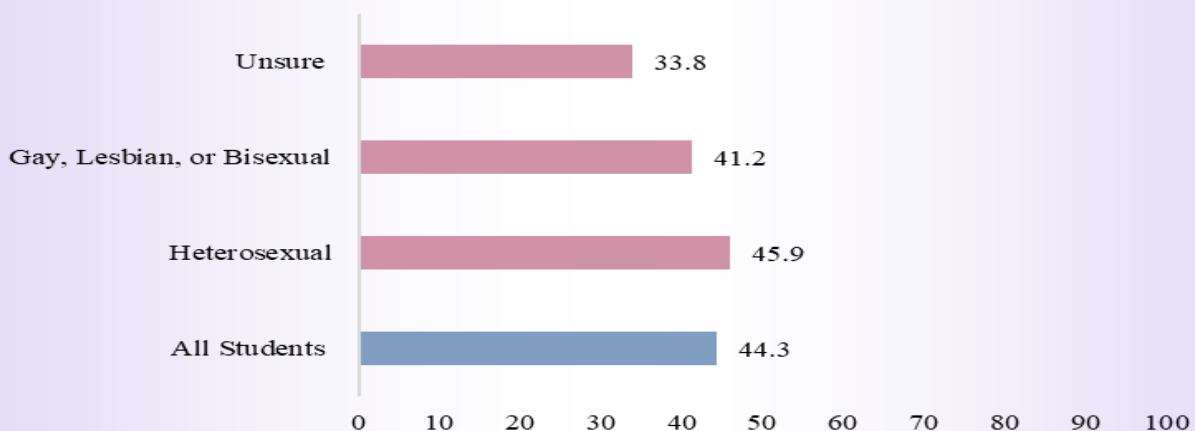
### Demographic Breakdown



### Trend Data by Year



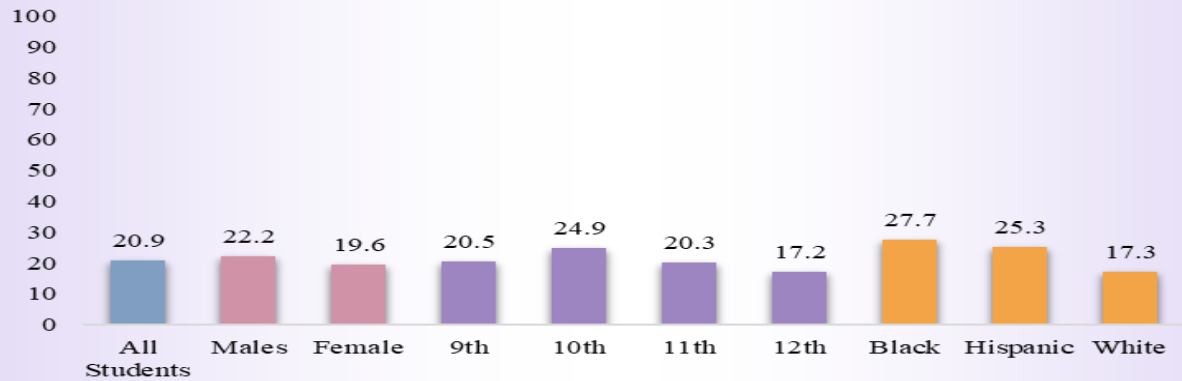
### Sexual Identity



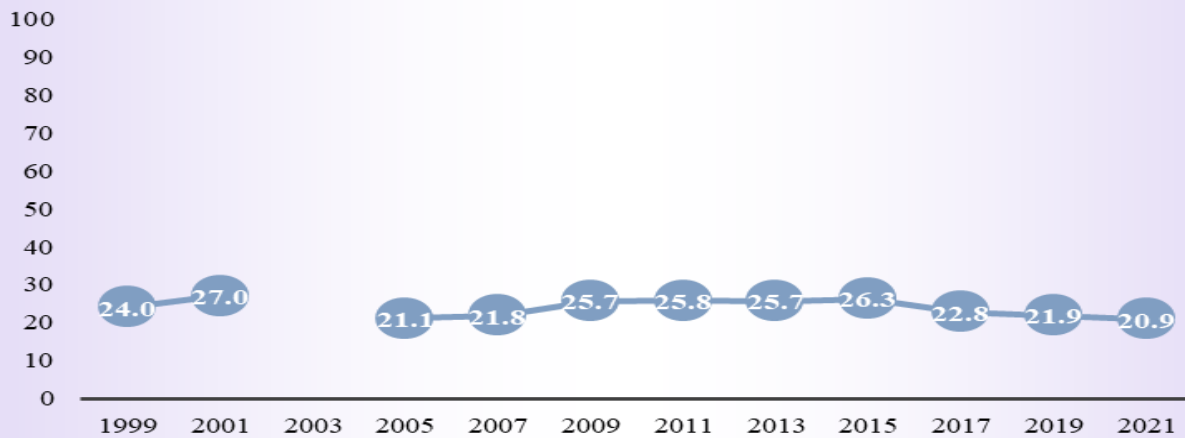
## Fruit or Fruit Juices Two or More Times Per Day

Statewide, 20.9 percent of students ate or drank fruit juice two or more times per day during the past seven days.

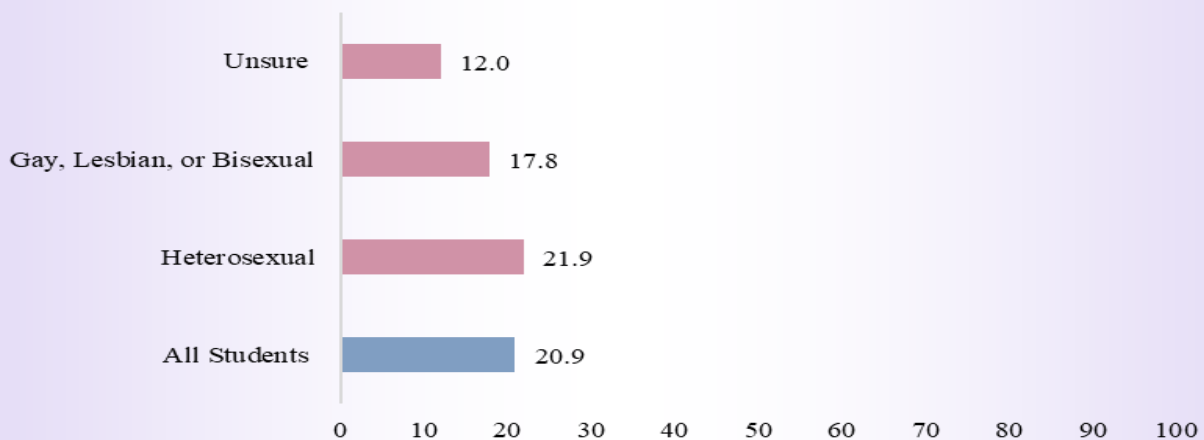
### Demographic Breakdown



### Trend Data by Year

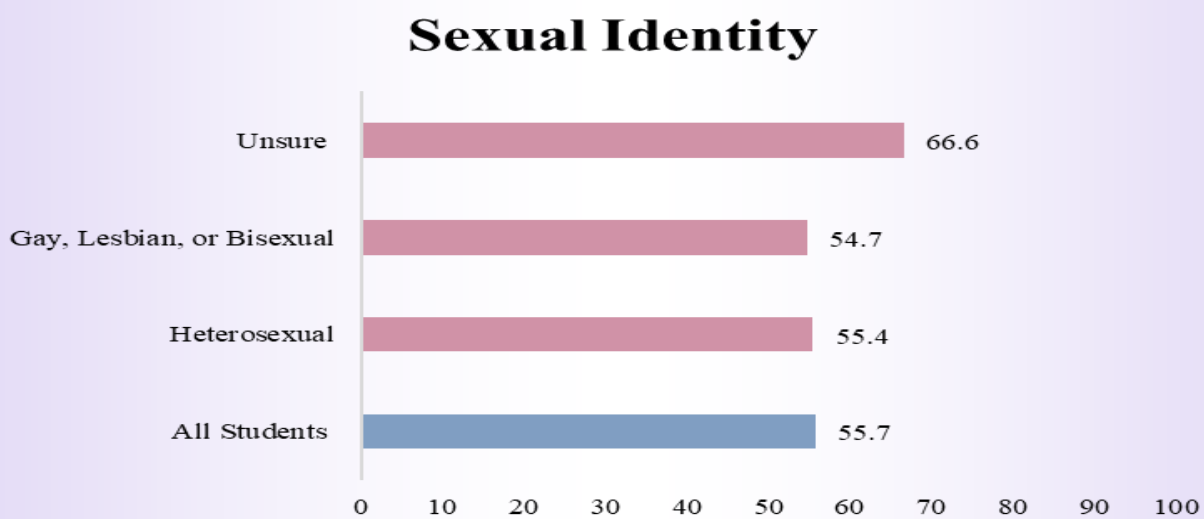
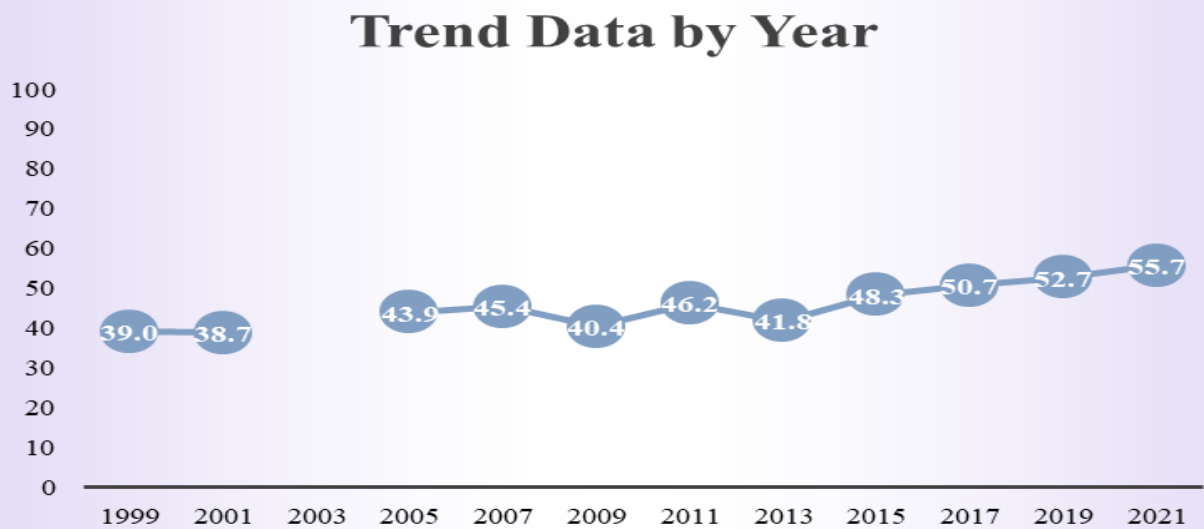
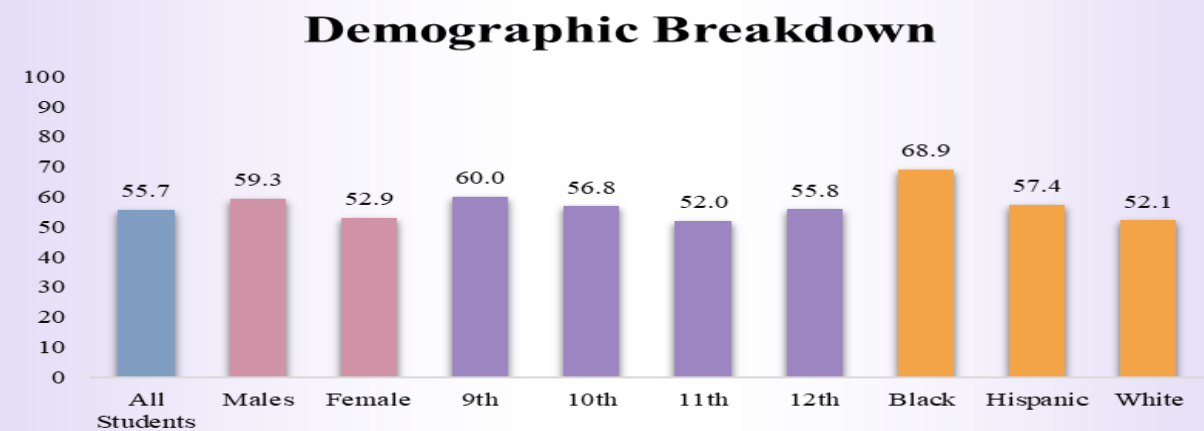


### Sexual Identity



Green Salad

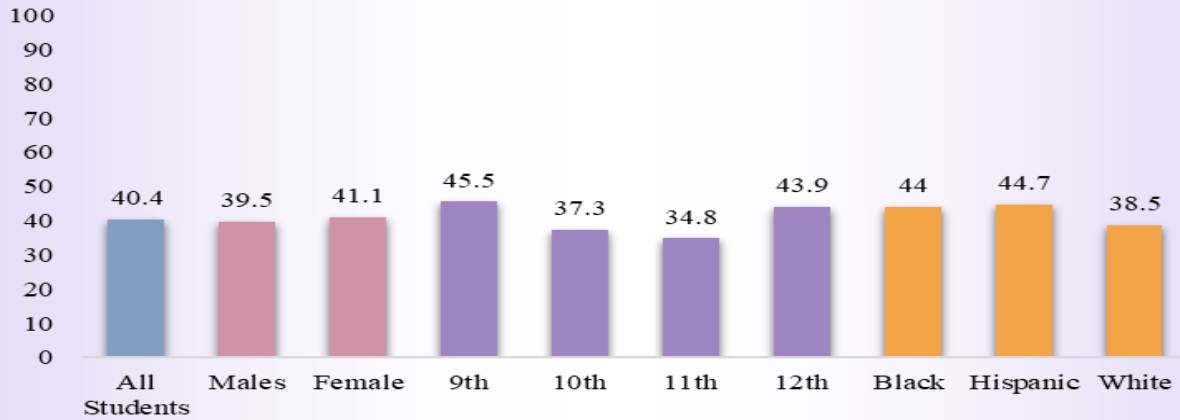
Statewide, 55.7 percent of students did not eat green salad on any of the past seven days.



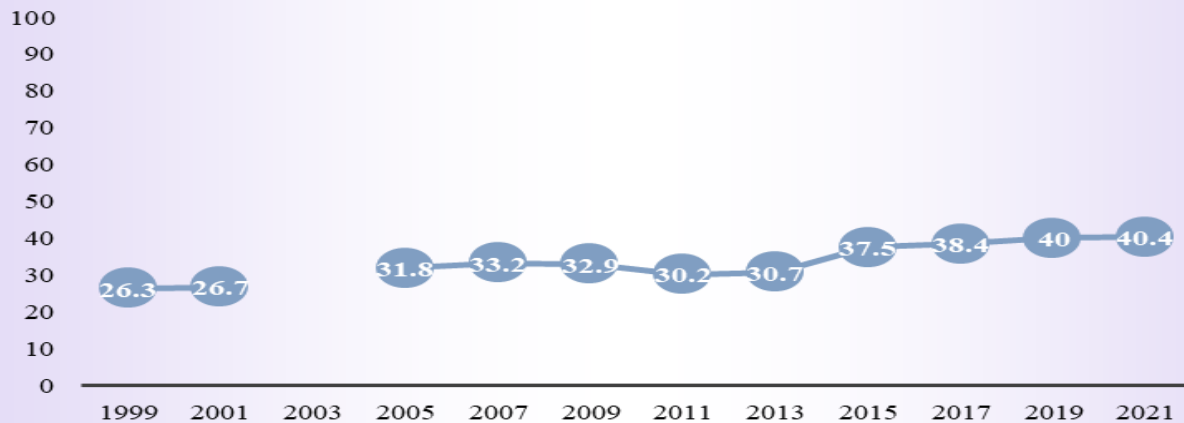
## Consumption of Potatoes

Statewide, 40.4 percent of students did not eat potatoes on any of the past seven days.

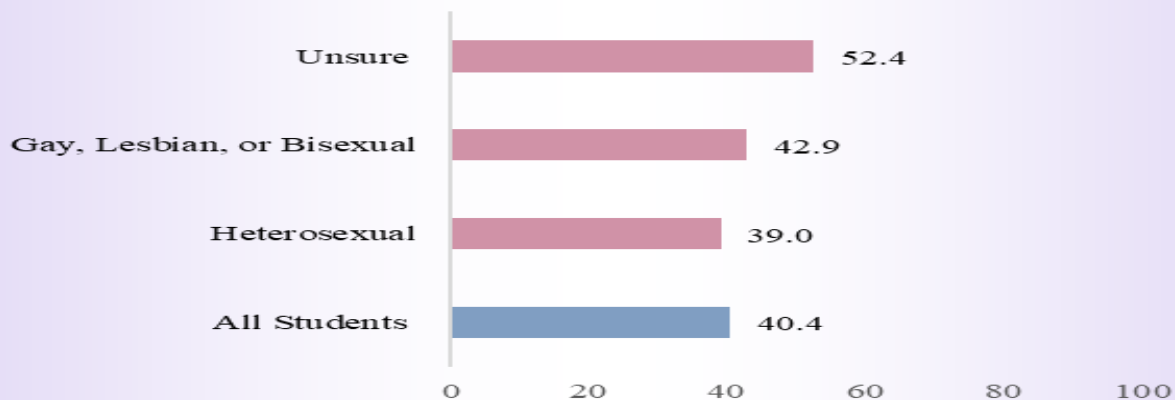
### Demographic Breakdown



### Trend Data by Year



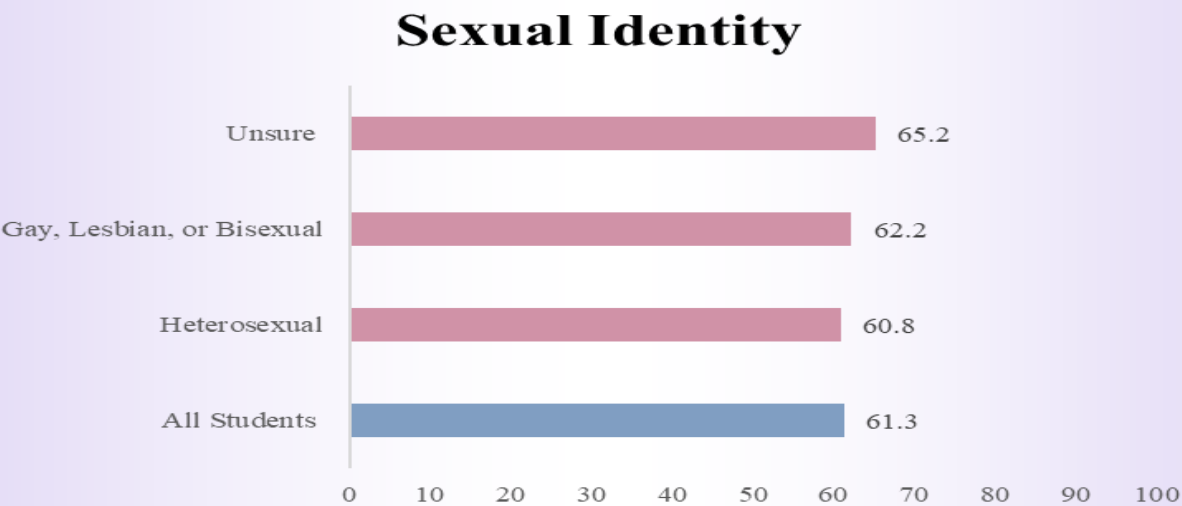
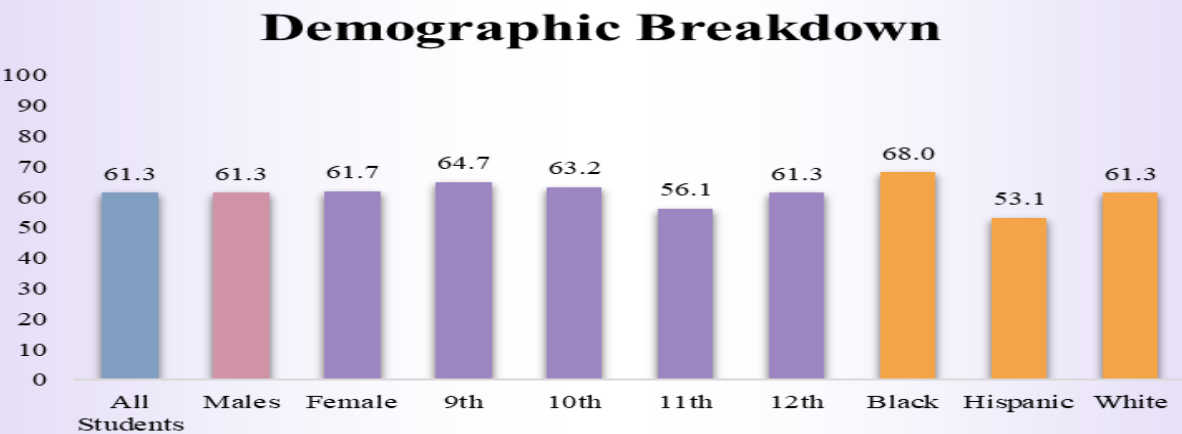
### Sexual Identity





Consumption of Carrots

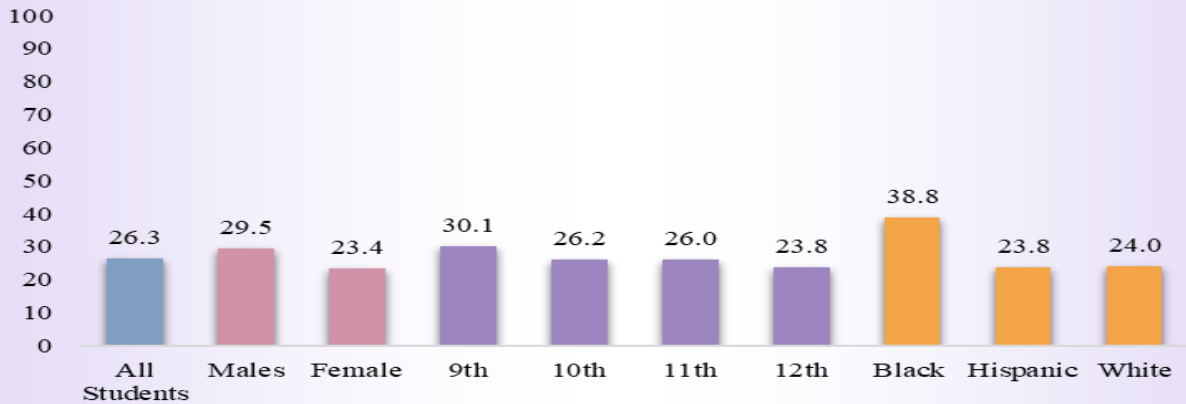
Statewide, 61.3 percent of students did not eat carrots on any of the past seven days.



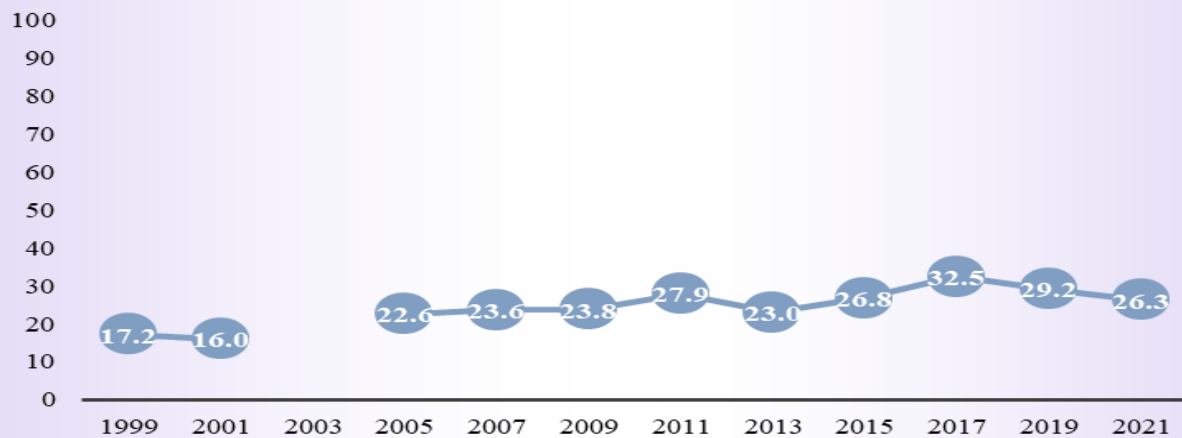
## Consumption of Other Vegetables

Statewide, 26.3 percent of students did not eat other vegetables during the past seven days.

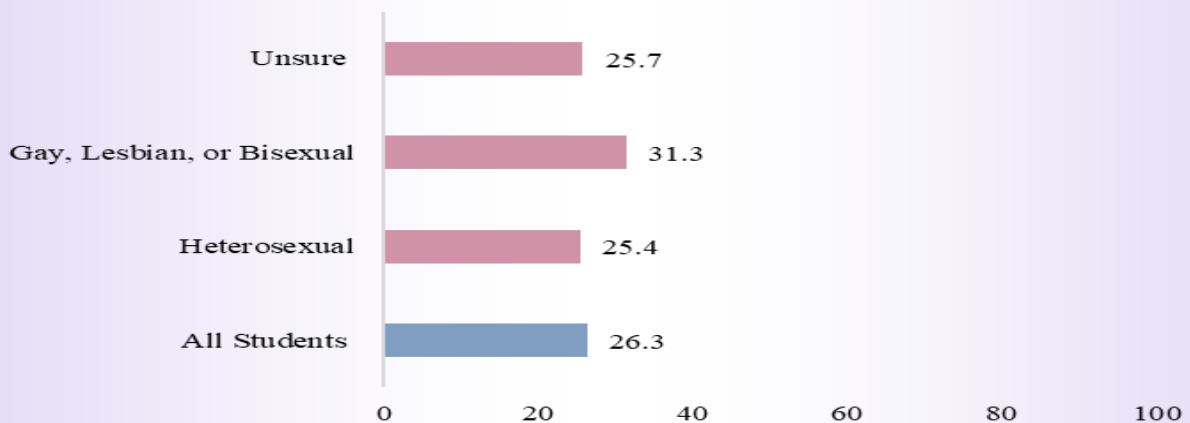
### Demographic Breakdown



### Trend Data by Year



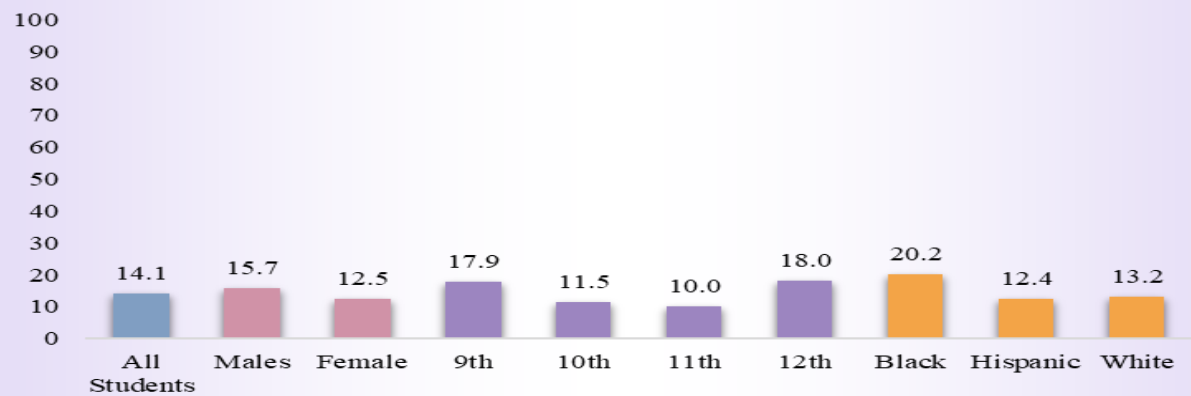
### Sexual Identity



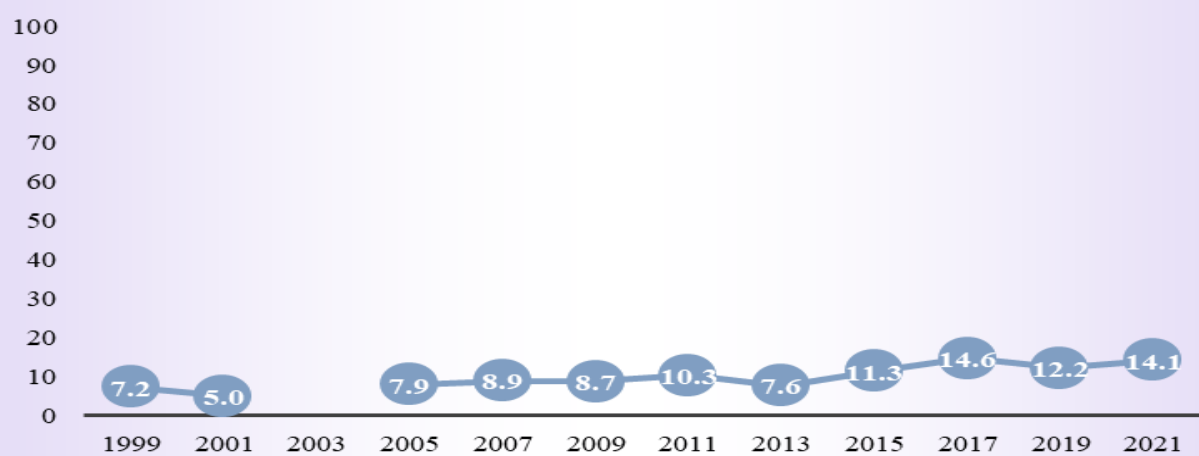
No Consumption of Vegetable

Statewide, 14.1 percent of students did not eat vegetables during the past seven days.

Demographic Breakdown



Trend Data by Year

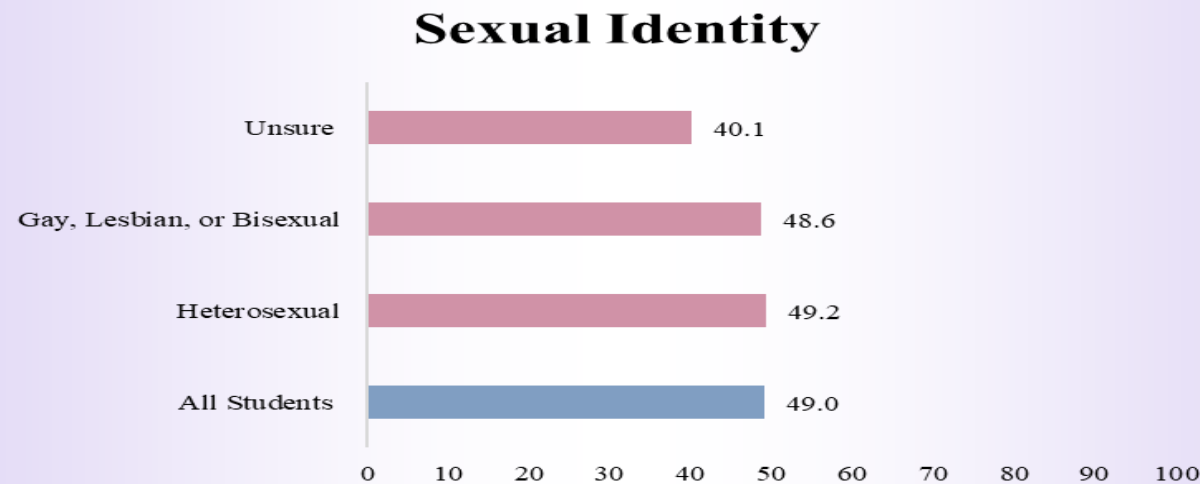
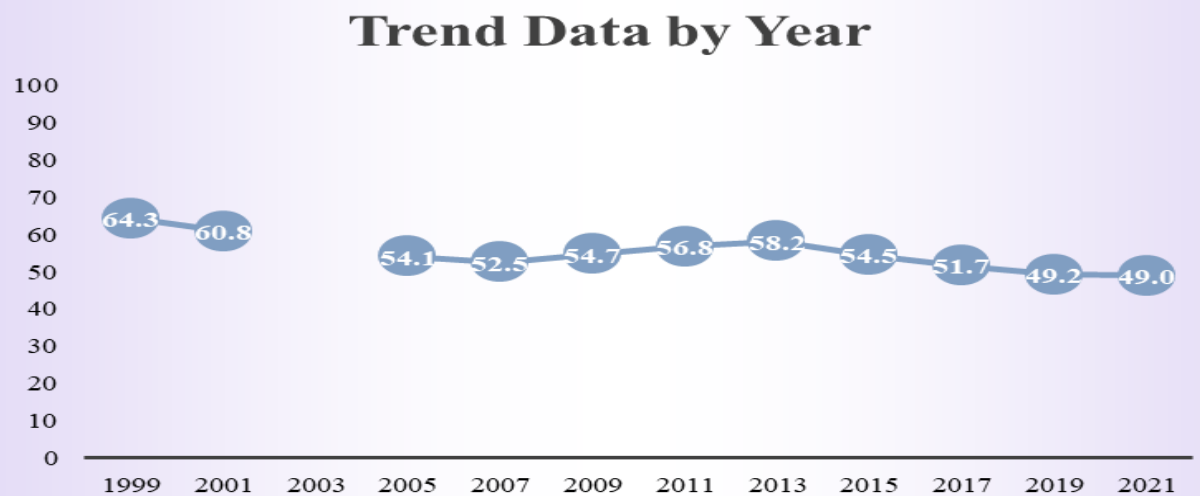
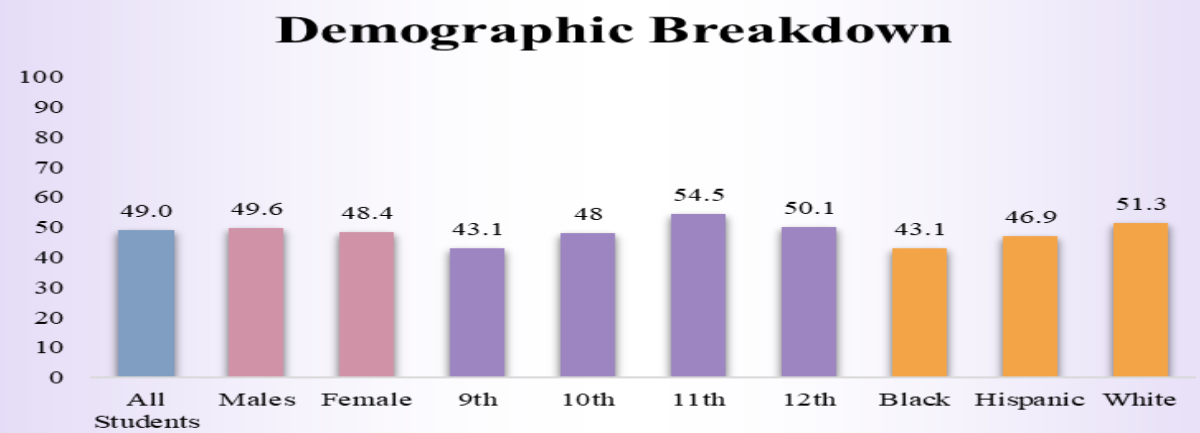


Sexual Identity



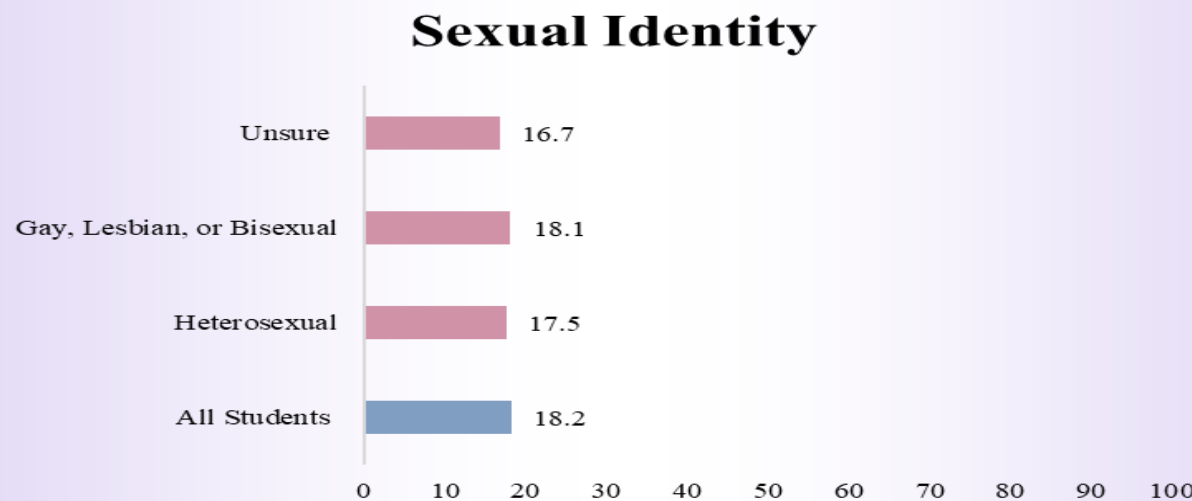
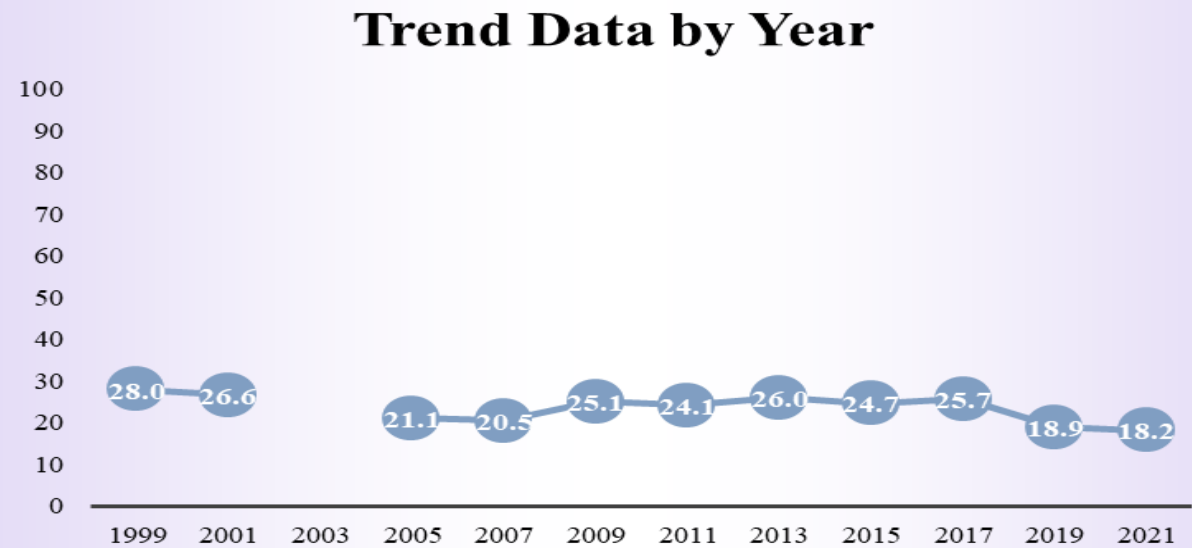
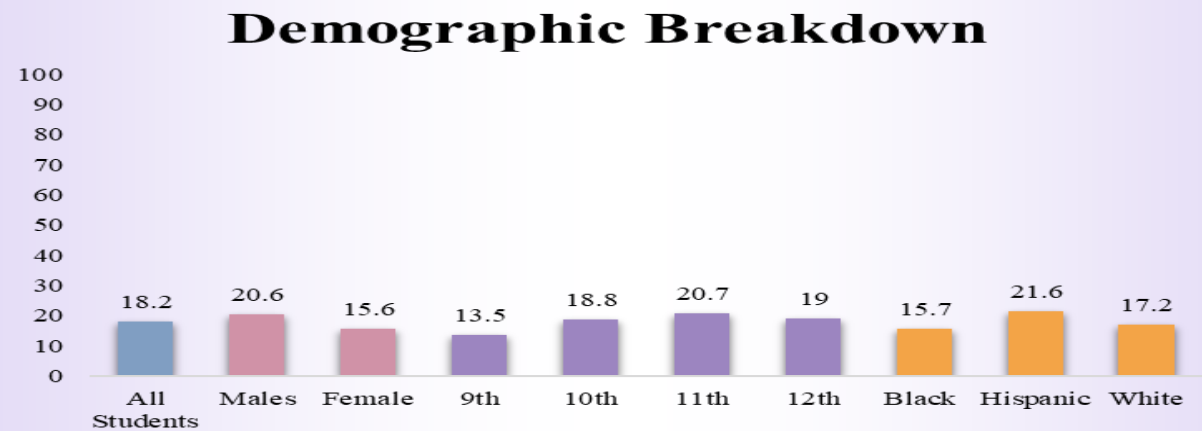
Ate Vegetables One or More Times Per Day

Statewide, 49.0 percent of students ate vegetables one or more times per day during the past 7 days.



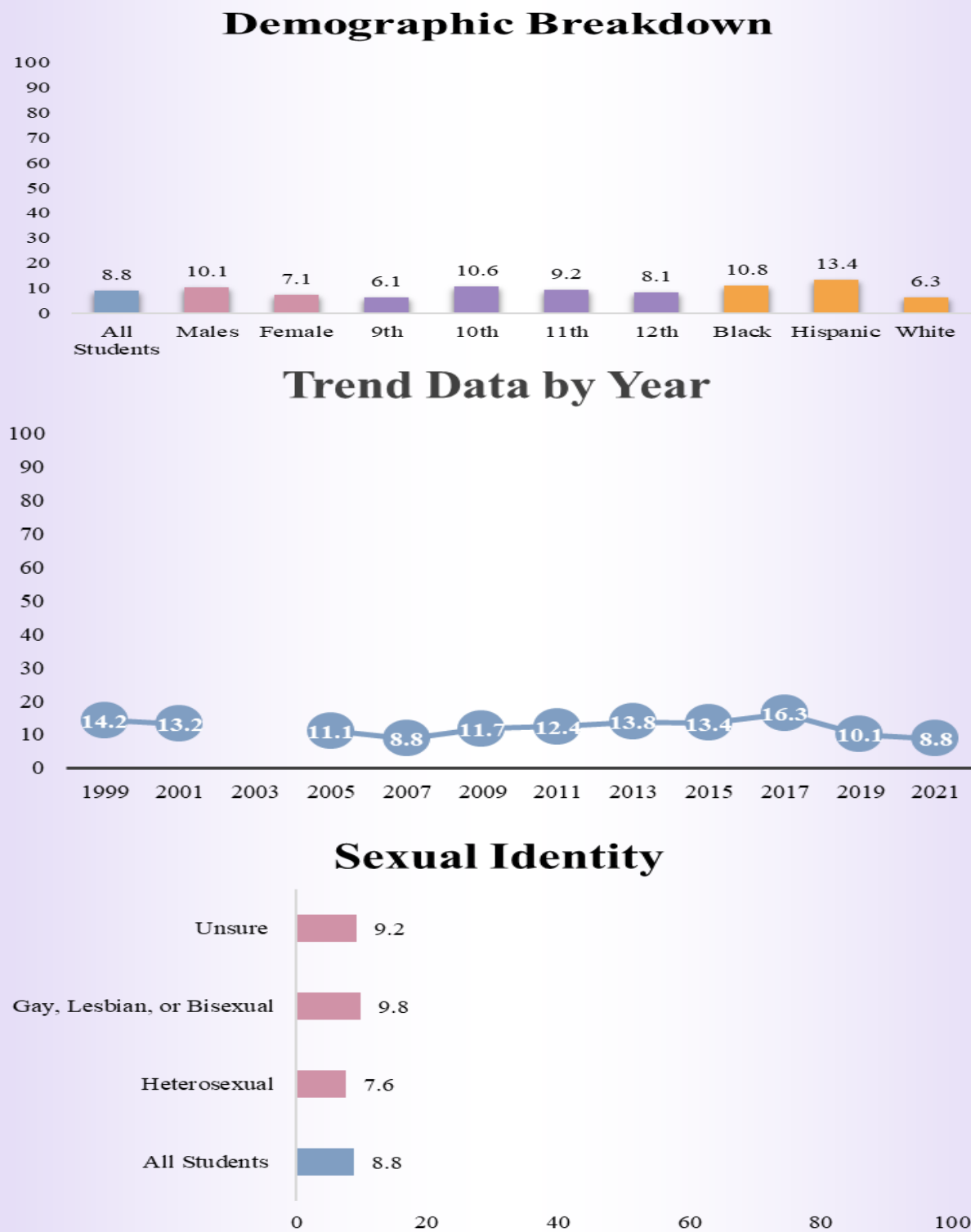
Ate Vegetables Two or More Times Per Day

Statewide, 18.2 percent of students ate vegetables two or more times per day during the past seven days.



Ate Vegetables Three or More Times Per Day

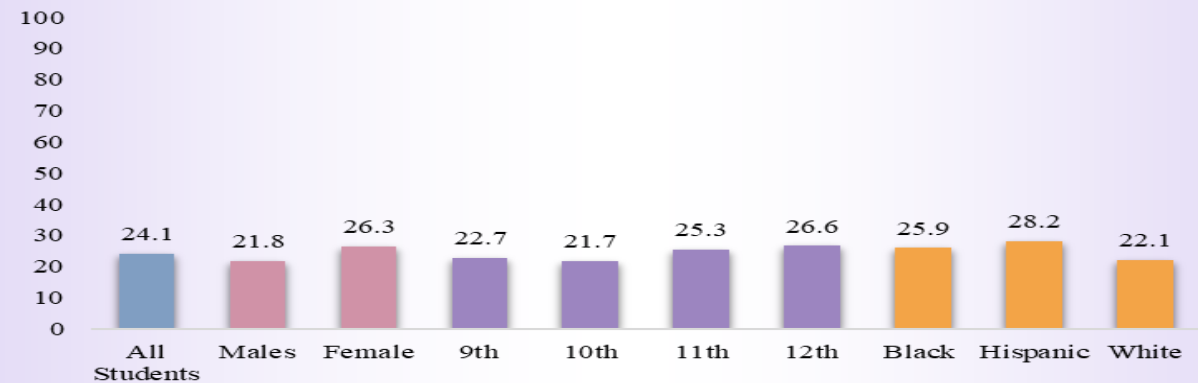
Statewide, 8.8 percent of students ate vegetables three or more times per day during the past seven days.



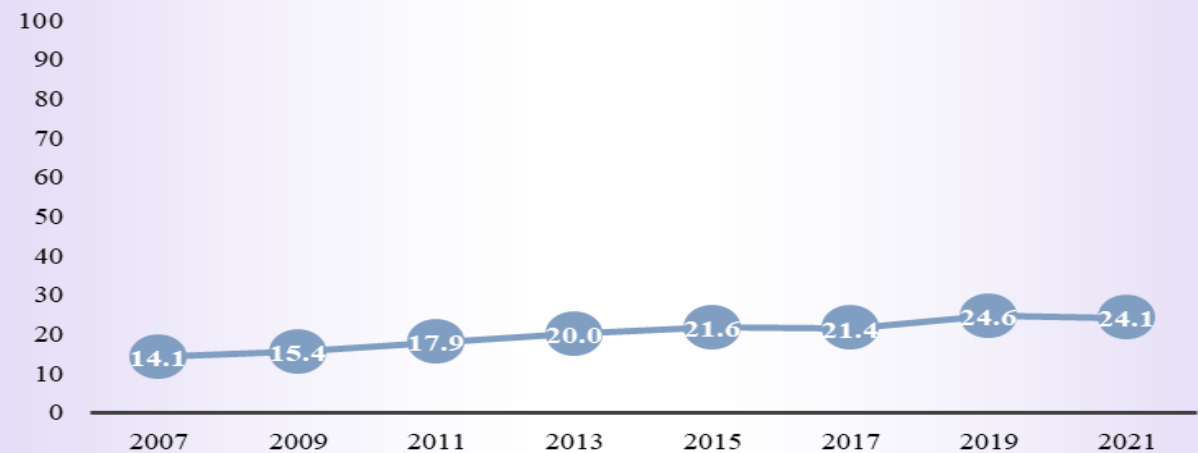
Did Not Drink Soda or Pop

Statewide, 24.1 percent of students did not drink a can, bottle, or glass of soda or pop during the past seven days.

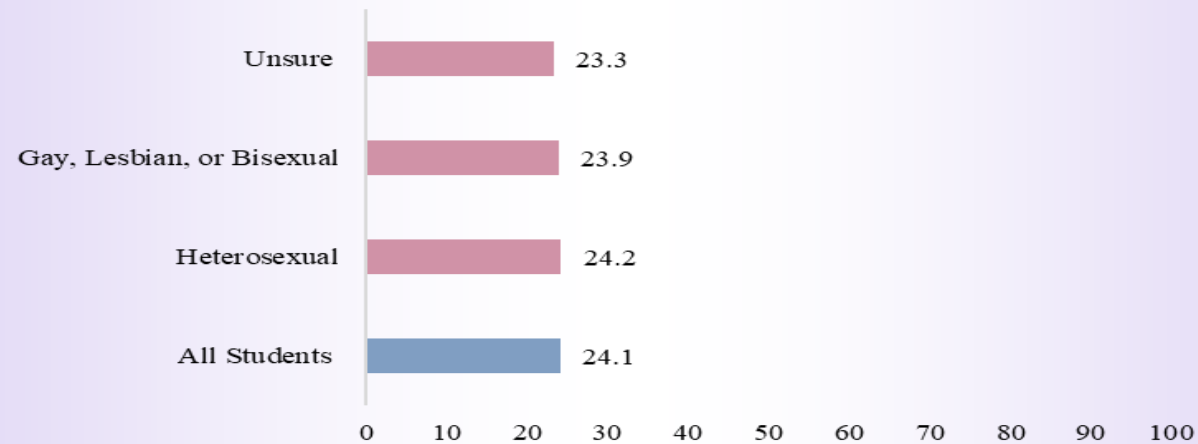
Demographic Breakdown



Trend Data by Year



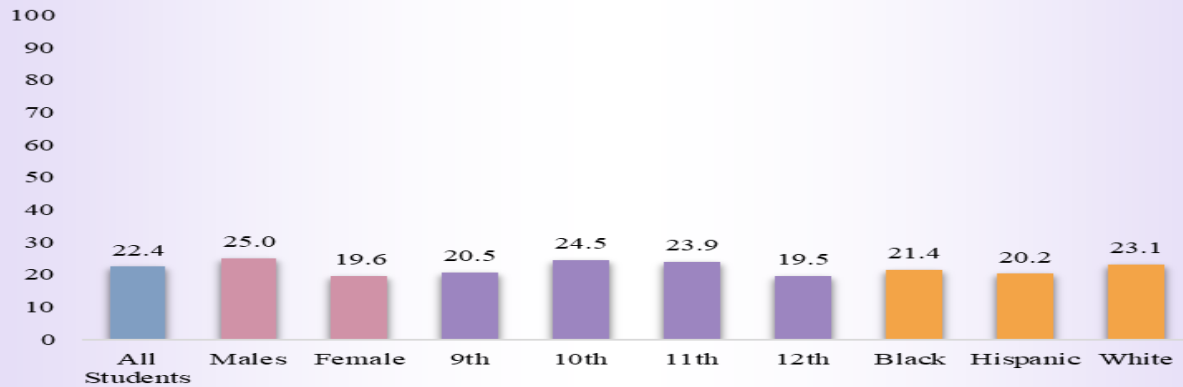
Sexual Identity



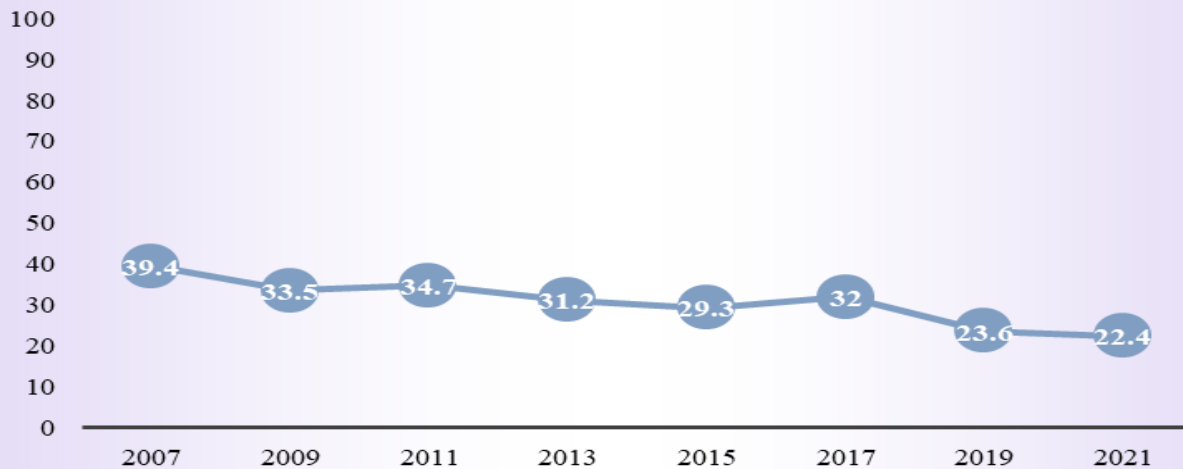
### Drank Soda or Pop One or More Times Per Day

Statewide, 22.4 percent of students drank a can, bottle, or glass of soda or pop one or more times per day during the past seven days.

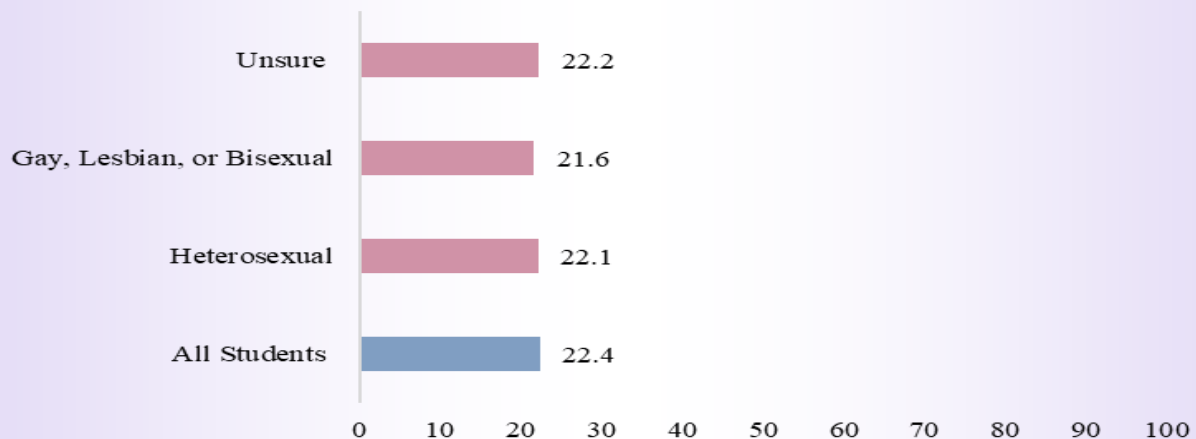
#### Demographic Breakdown



#### Trend Data by Year



#### Sexual Identity

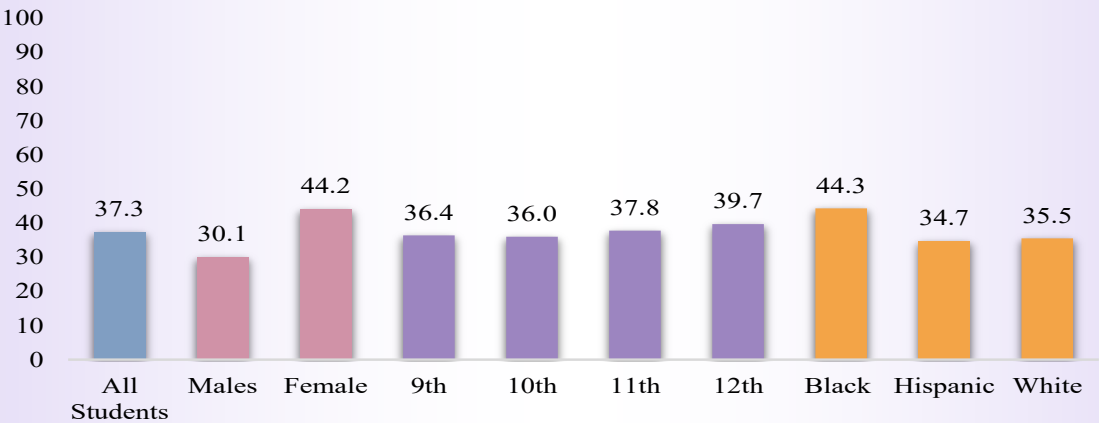




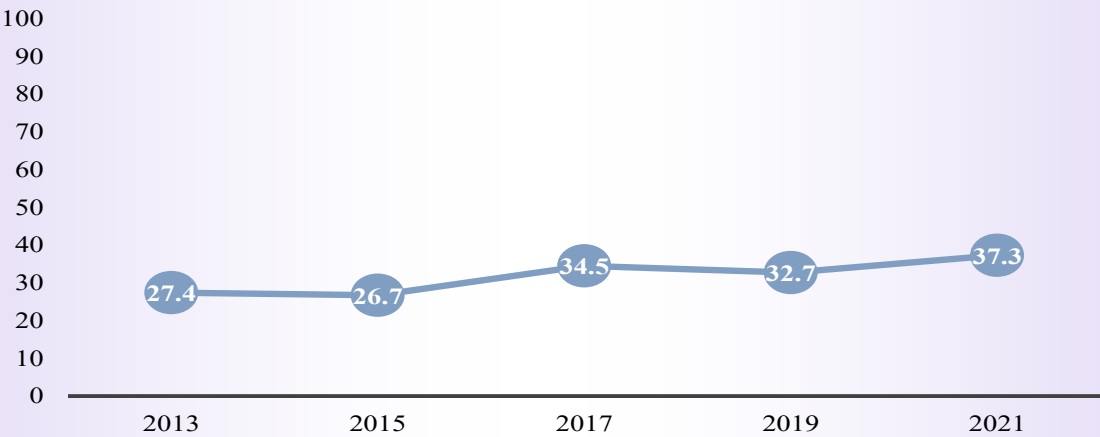
No Milk Consumption

Statewide, 37.3 percent of students did not drink milk during the past seven days.

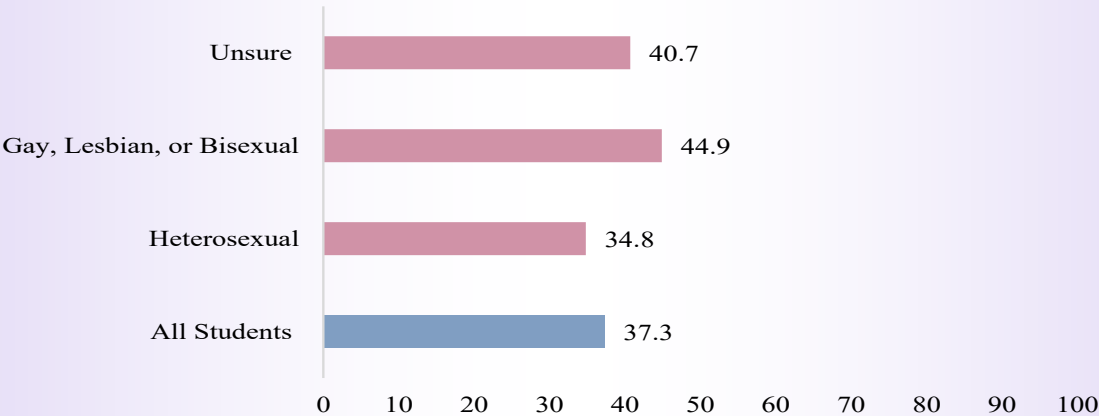
Demographic Breakdown



Trend Data by Year



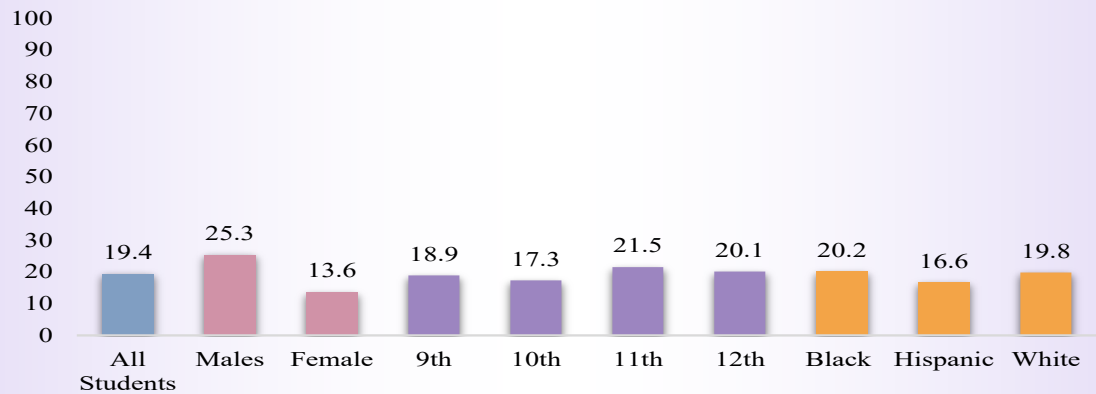
Sexual Identity



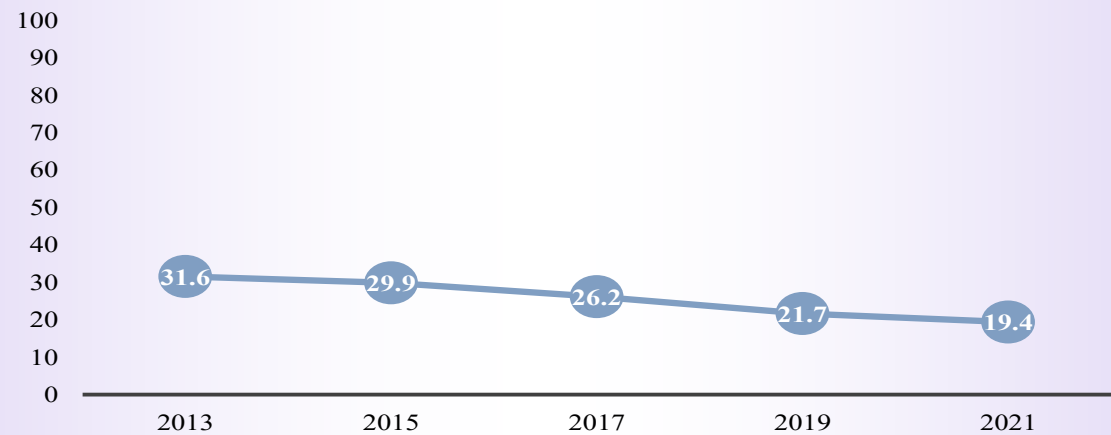
Drank Milk One or More Times Per Day

Statewide, 19.4 percent of students drank one or more glasses of milk one or more times per day during the past seven days.

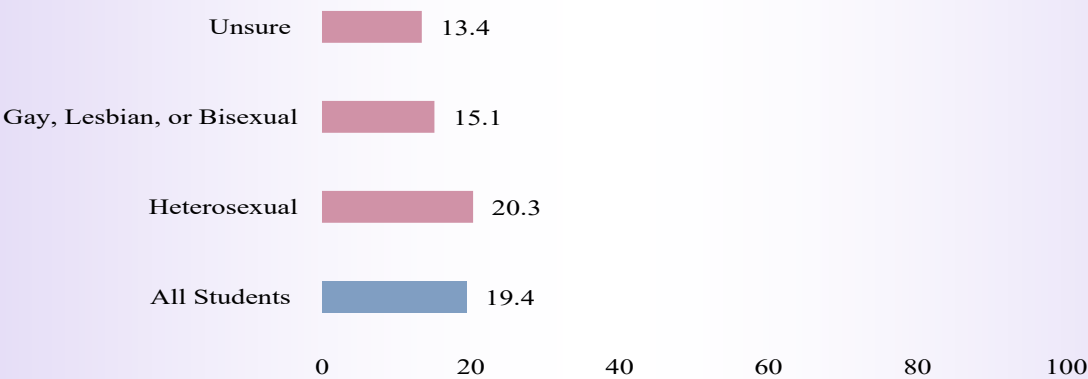
Demographic Breakdown



Trend Data by Year



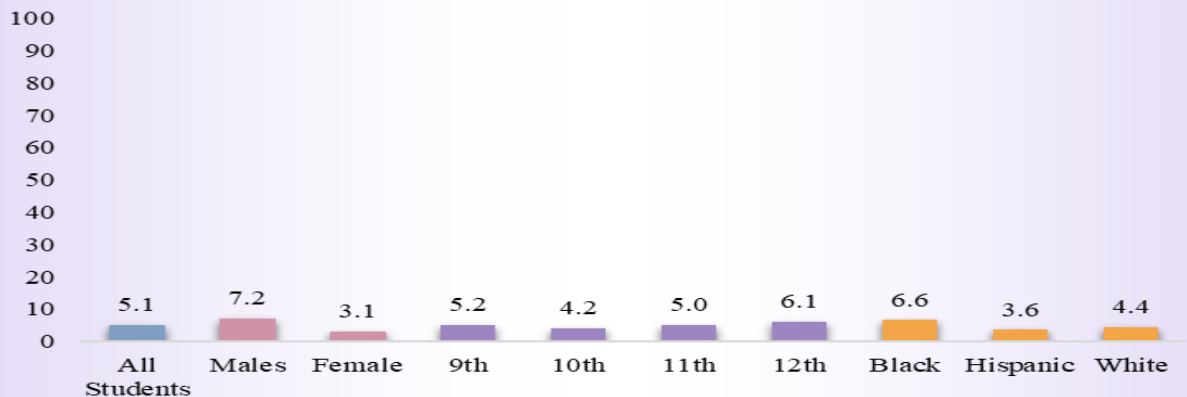
Sexual Identity



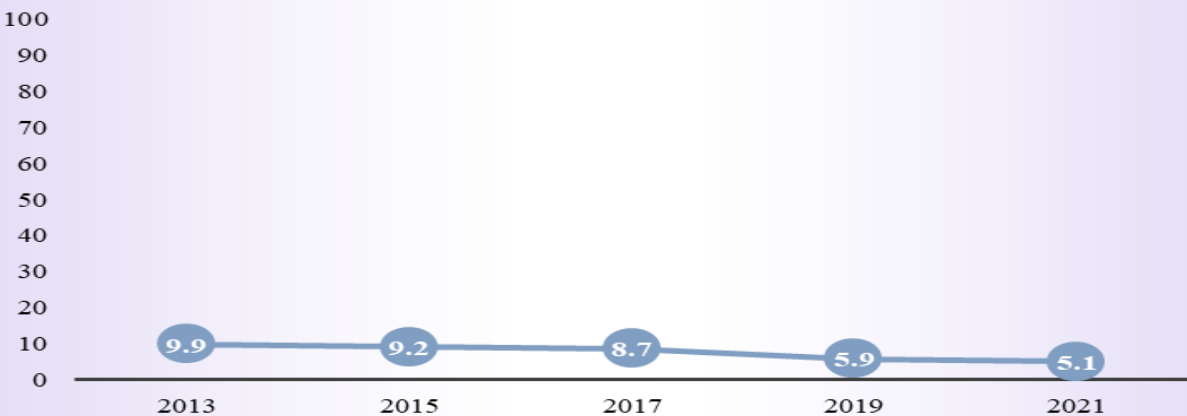
**Drank Milk Three or More Times Per Day**

Statewide, 5.1 percent of students drank three or more glasses of milk one or more times per day during the past seven days.

**Demographic Breakdown**



**Trend Data by Year**

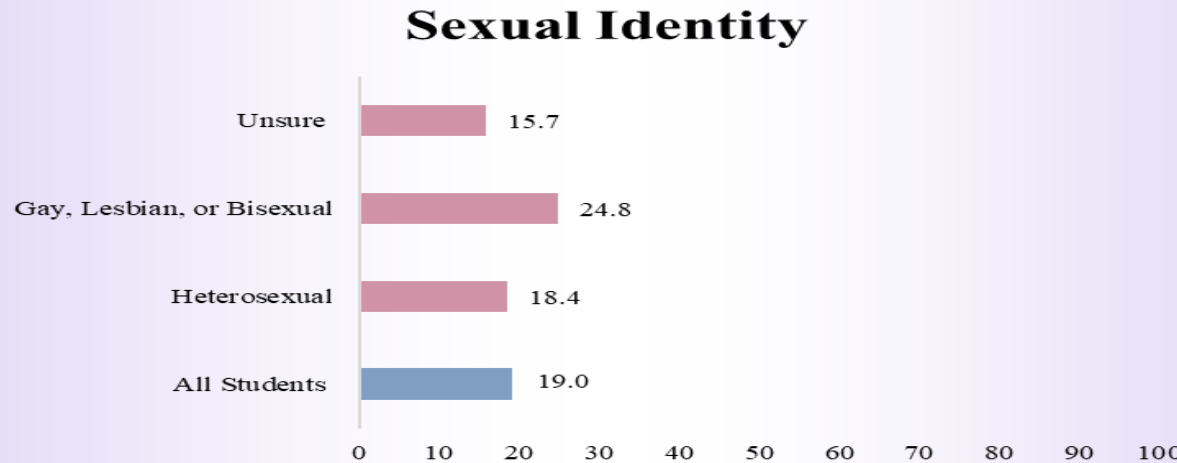
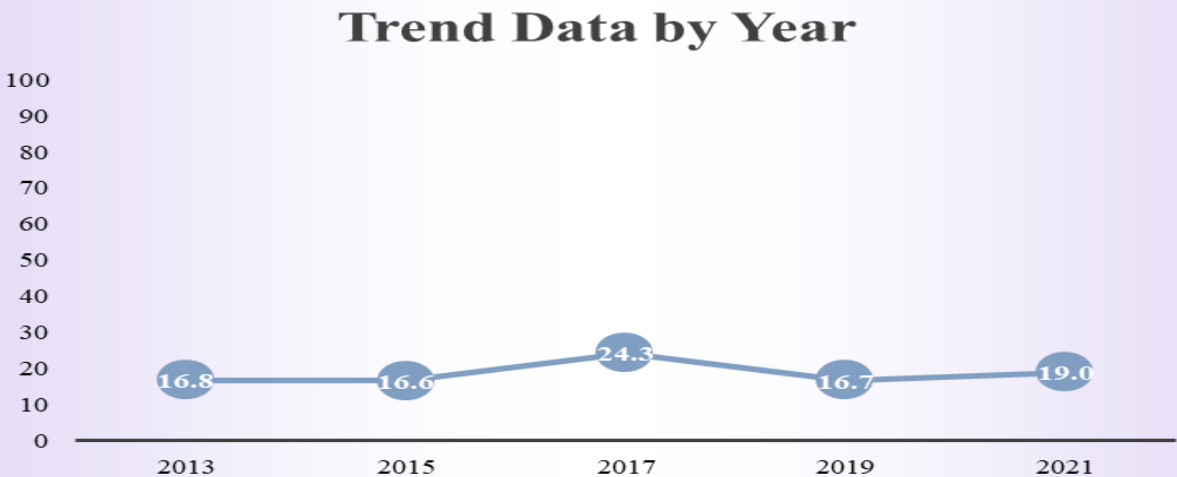
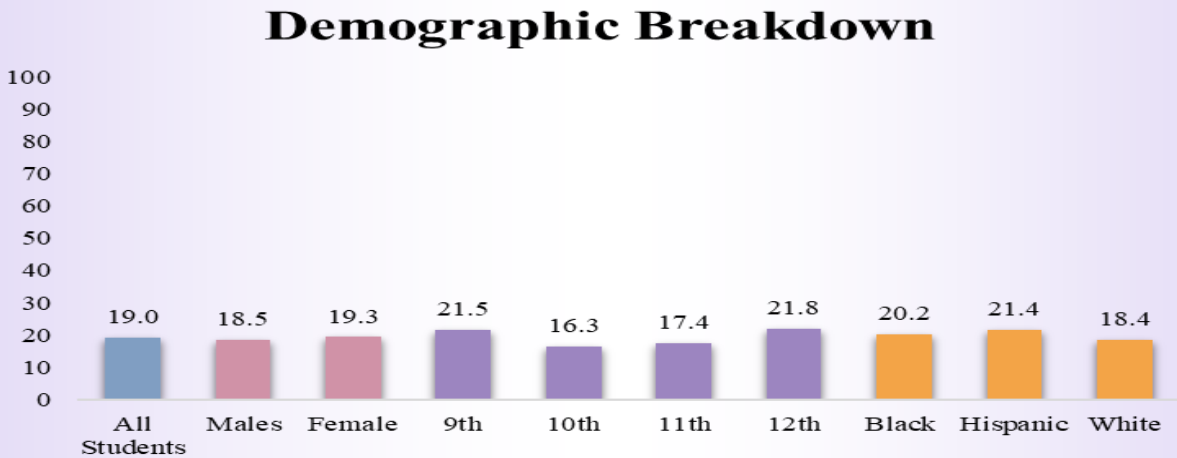


**Sexual Identity**



Did Not Eat Breakfast

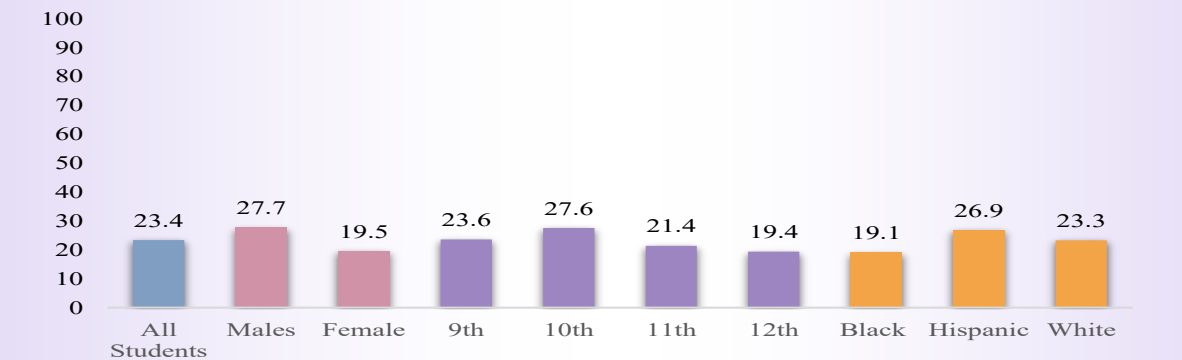
Statewide, 19.0 percent of students did not eat breakfast on any of the past seven days.



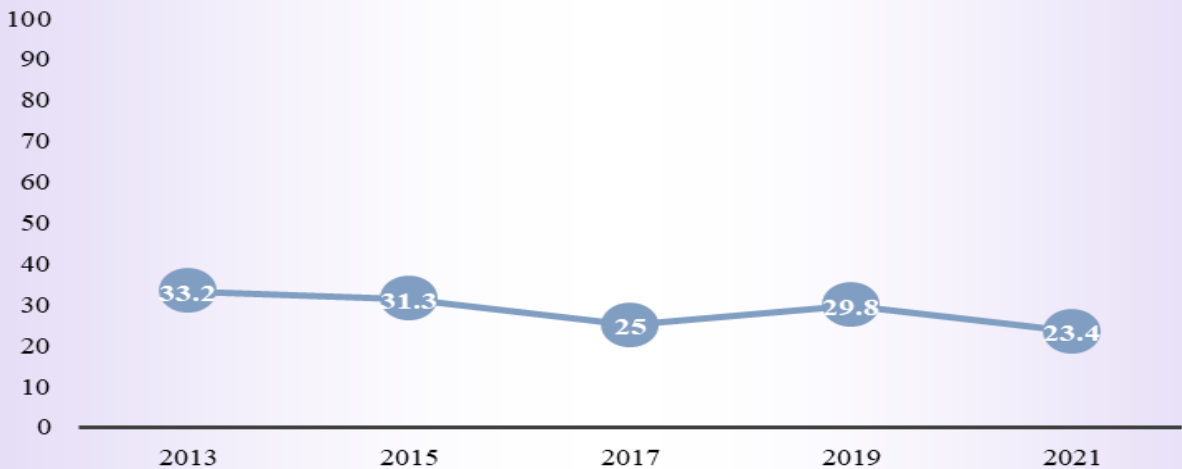
Ate Breakfast Daily

Statewide, 23.4 percent of students ate breakfast on all of the past seven days.

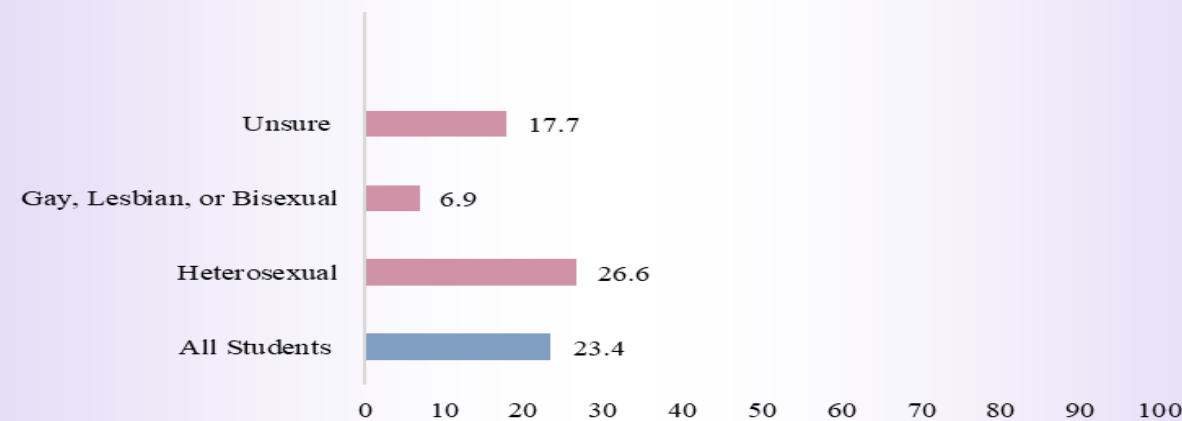
Demographic Breakdown



Trend Data by Year



Sexual Identity



## **Physical Activity**

### **QUESTIONS:**

82. During the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.)

83. On an average school day, how many hours do you watch TV?

84. On an average school day, how many hours do you play video or computer games or use a computer for something that is not schoolwork? (Count time spent playing games, watching videos, texting, or using social media on your smartphone, computer, Xbox, PlayStation, iPad, or other tablet.)

85. In an average week when you are in school, how many days do you go to physical education (PE) classes?

86. During the past 12 months, on how many sports teams did you play? (Count any teams run by your school or community groups.)

### **RATIONALE:**

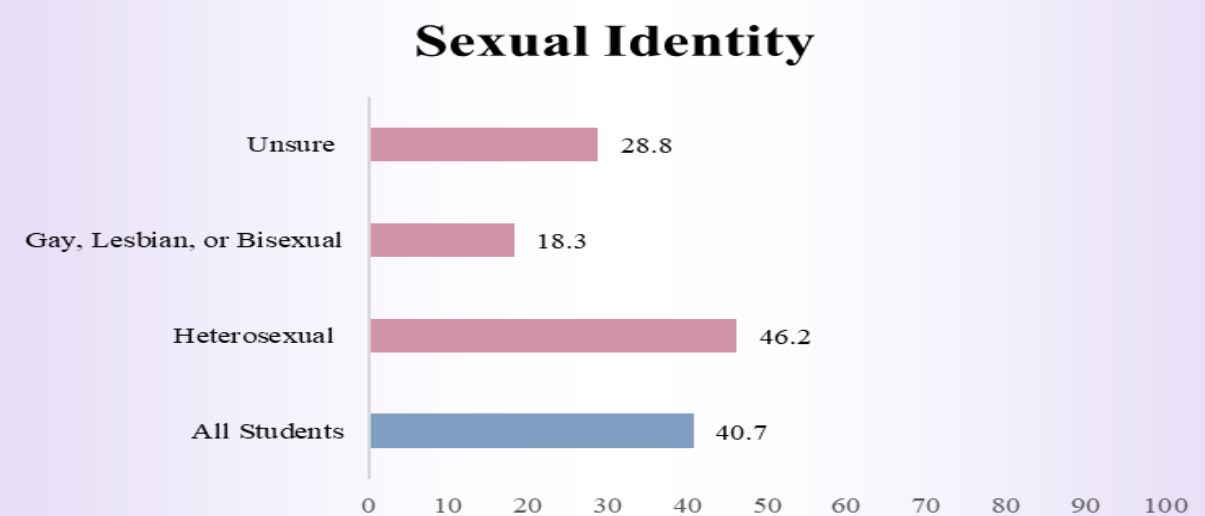
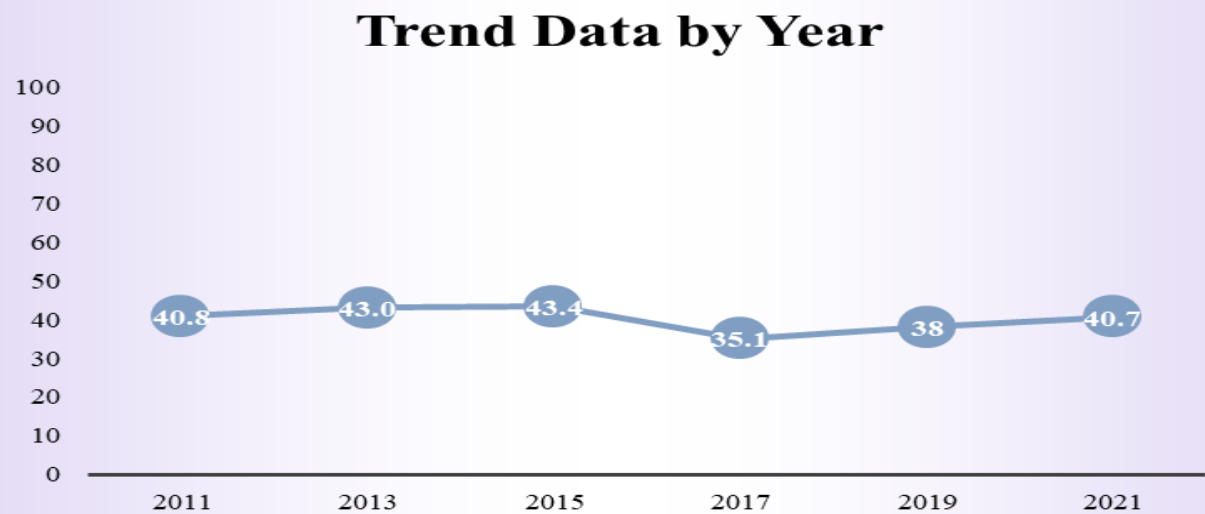
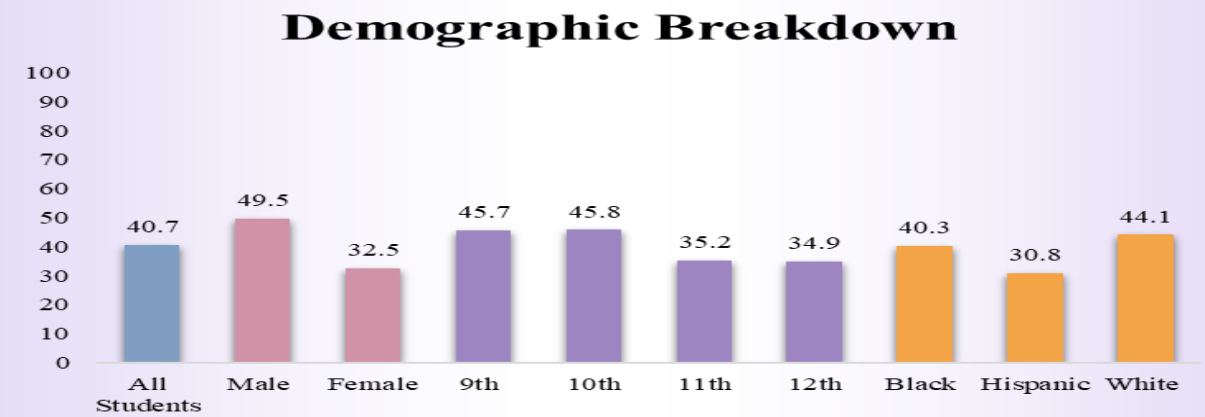
These questions measure participation in physical activity and team sports and attendance in physical education classes. These questions also examine use of screen time including the use of a TV, computer, smart phone, or other electronic device to watch shows or videos, play games, access the Internet, or use social media. Participation in regular physical activity among young people can help build and maintain healthy bones and muscles, maintain body weight and reduce body fat, reduce feelings of depression and anxiety, and promote psychological well-being.(158) Over time, regular physical activity decreases the risk of high blood pressure, heart disease, diabetes, obesity, some types of cancer, and premature death.(158) In 2018, the U.S. Department of Health and Human Services recommended that children and adolescents ages 6 through 17 years do 60 minutes (1 hour) or more of moderate-to-vigorous physical activity daily. (159) In 2019, 23% of high school students were physically active doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time for a total of at least 60 minutes per day on each of the 7 days before the survey.(160)

In 2012, the U.S. Department of Health and Human Services released a mid-course report on the Physical Activity Guidelines for Americans. (161) This report focused on strategies to increase physical activity among youth. The report concluded that school-based settings had the strongest evidence and multi-component physical activity programs, including physical education, had the most promise for increasing physical activity. These strategies were reiterated in the 2018 Physical Activity Guidelines for Americans, 2nd edition. (159) In 2013, the Institute of Medicine (IOM) released *Educating the Student Body: Taking Physical Activity and Physical Education to School*.(162) This report also stressed the importance of a comprehensive, multi-component, whole school approach to physical activity in schools. CDC and many other federal and national partners are promoting Comprehensive School Physical Activity Programs (CSPAP) to create school environments that offer many opportunities for students to be physically active throughout the school day.(163) A CSPAP includes strong coordination across five components: physical education, physical activity during school, physical activity before and after school, staff involvement, and family and community engagement. Physical education is the cornerstone of CSPAP with research showing that school physical education classes can increase adolescent participation in physical activity(164–170) and help high school students develop the knowledge, attitudes, and skills they need to engage in lifelong physical activity. (161,171,173) In 2019, 26% of high school students nationwide went to physical education classes on all 5 days in an average week when they were in school.(160)

Evidence shows an association between higher levels of screen time and a variety of health risks for youth, including adiposity, unhealthy diet, and depressive symptoms. (173–179) There is also evidence that increased screen time is associated with irritability, low cognitive and socioemotional development, and poor educational performance.(174) Among high school students nationwide in 2019, 46% of students played video or computer games or used a computer for something that was not school work for 3 or more hours per day on an average school day and 20% watched television 3 or more hours per day on an average school day.(180) Time spent in screen use might take time away from other beneficial activities of the day including physical activity and sleep. ( 180,181)

Met Recommended Levels of Physical Activity

Statewide, 40.7 percent of students were physically active for a total of at least 60 minutes per day on five or more of the past seven days.

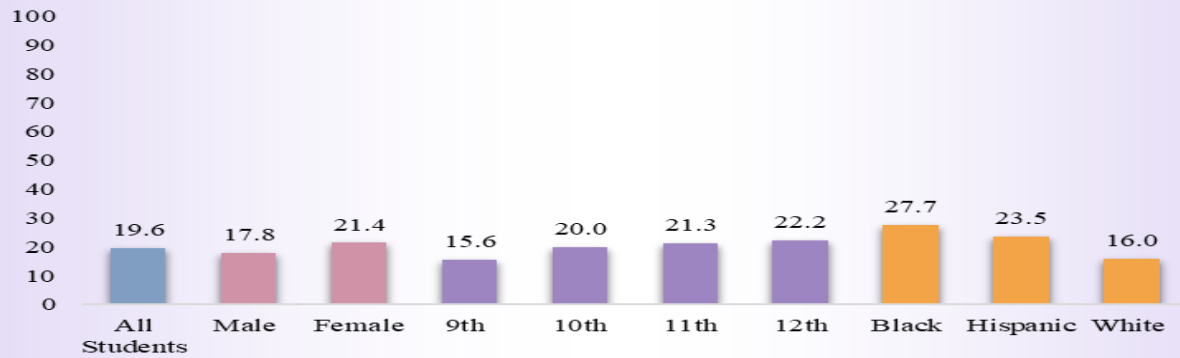




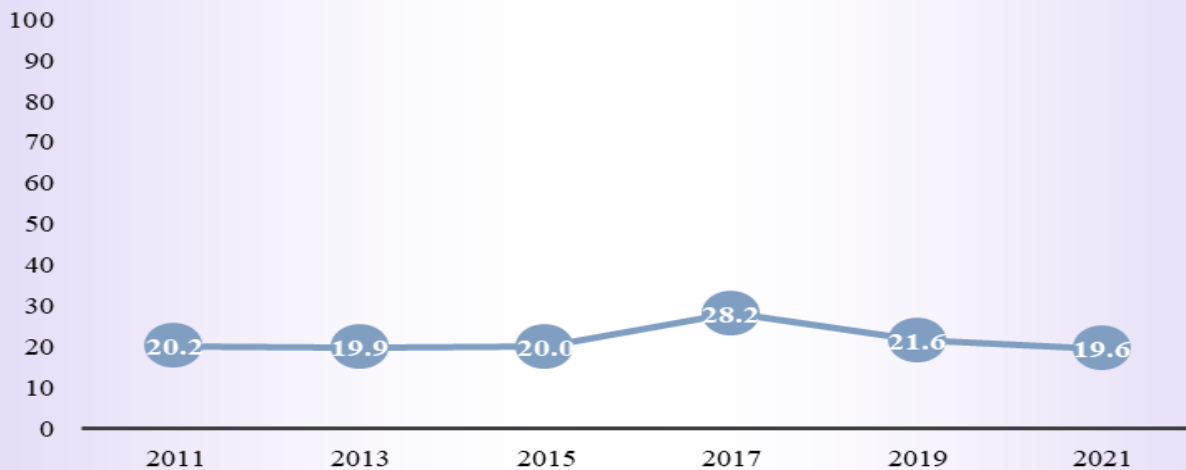
## No Physical Activity

Statewide, 19.6 percent of students did not participate in at least 60 minutes of physical activity on any of the past seven days.

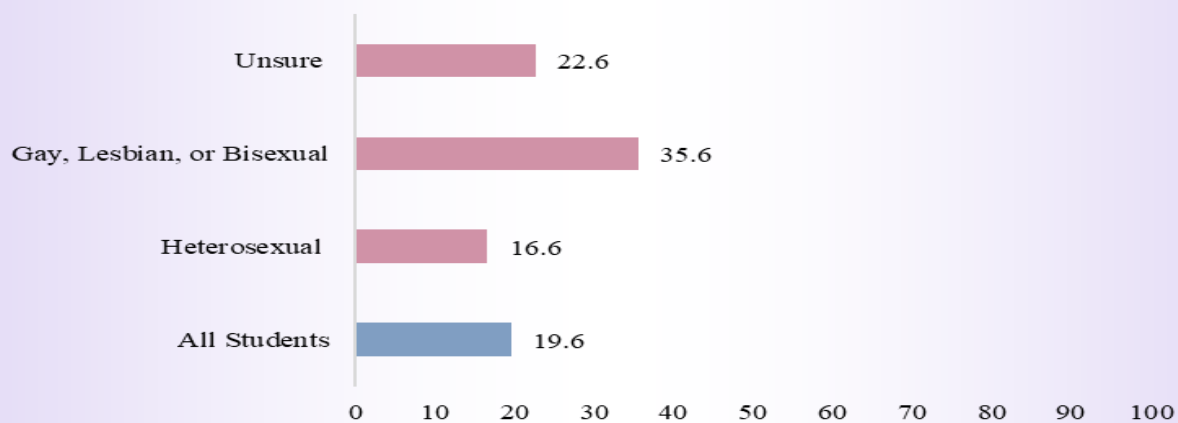
### Demographic Breakdown



### Trend Data by Year

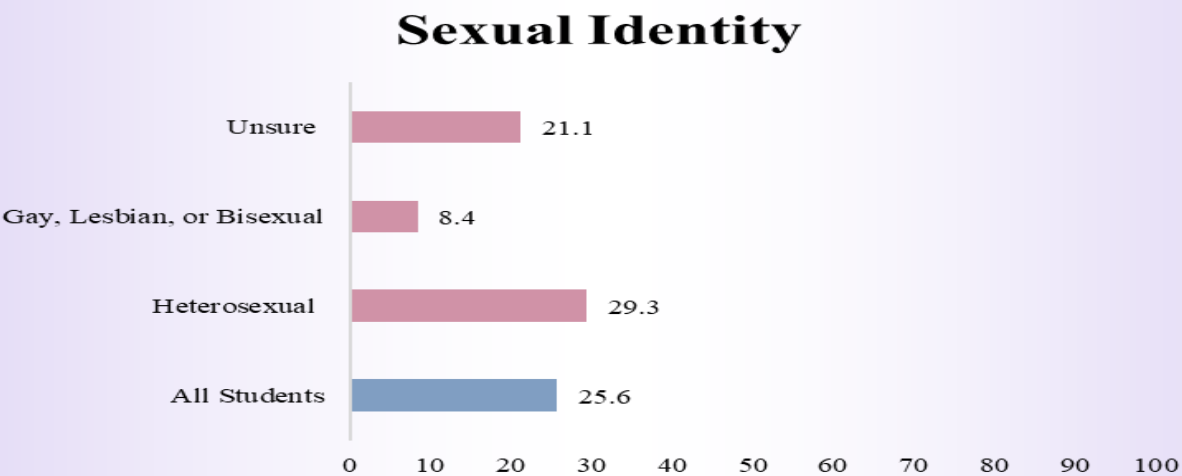
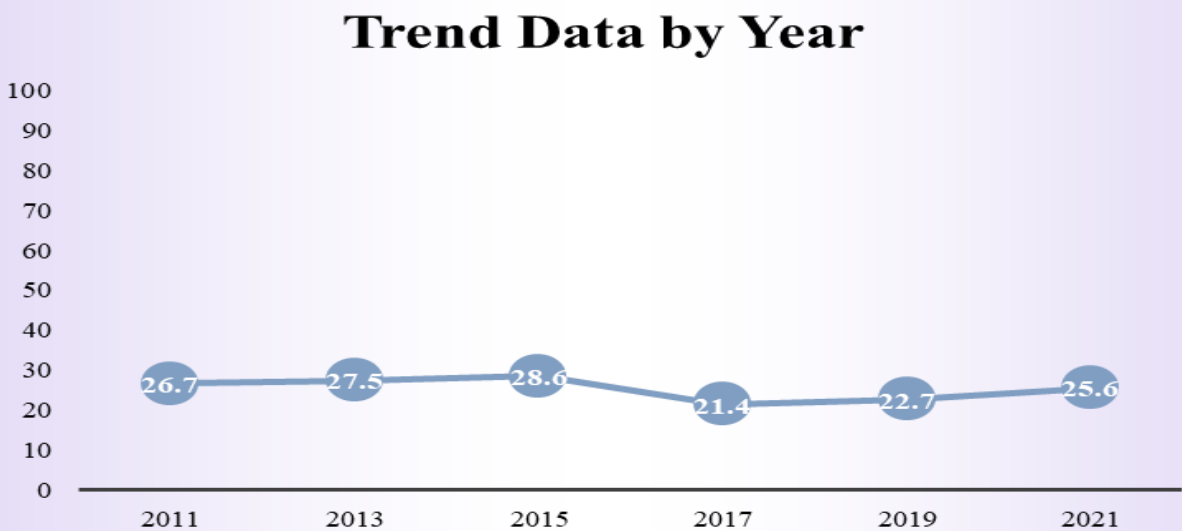
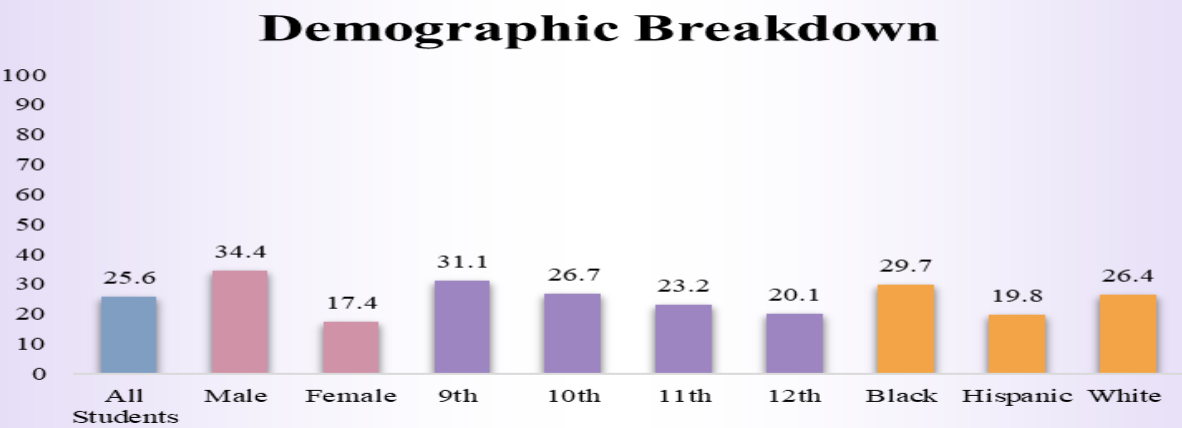


### Sexual Identity



Daily Physical Activity

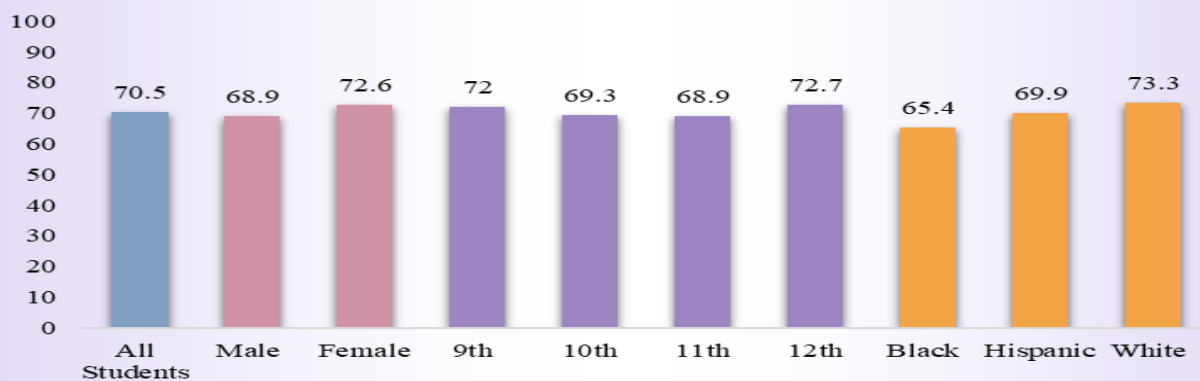
Statewide, 25.6 percent of students were physically active at least 60 minutes per day on all of the past seven days.



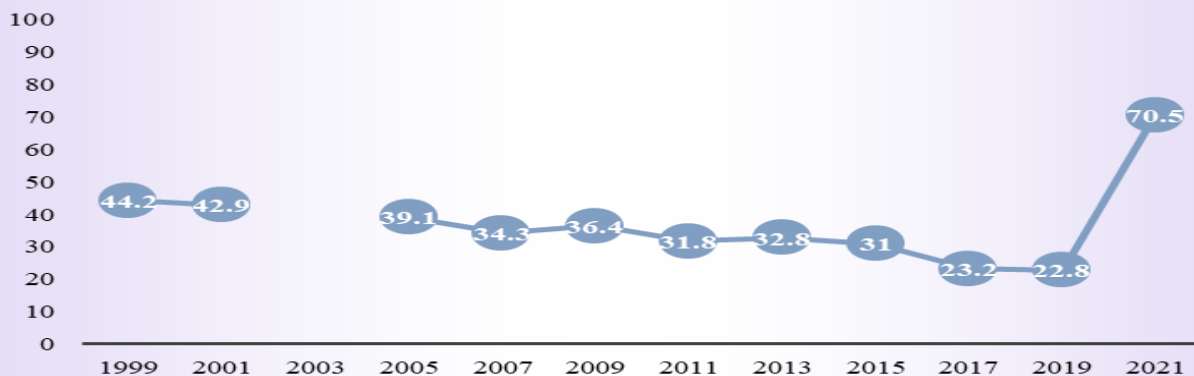
## Screen Time Three or More Hours Per Day

Statewide, 70.5 percent of students spent three or more hours on screen time (counting video games, computer, Xbox, iPad or other tablet, a smartphone, texting, YouTube, or social media, for something that was not school work, on an average school day).

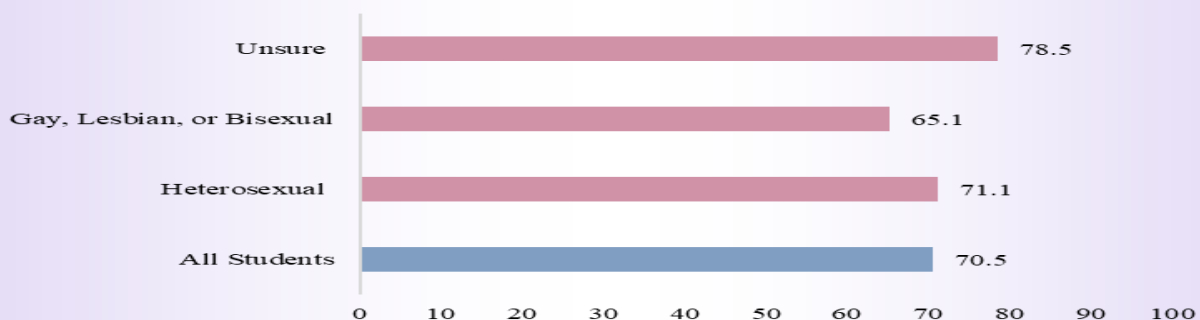
### Demographic Breakdown



### Trend Data by Year



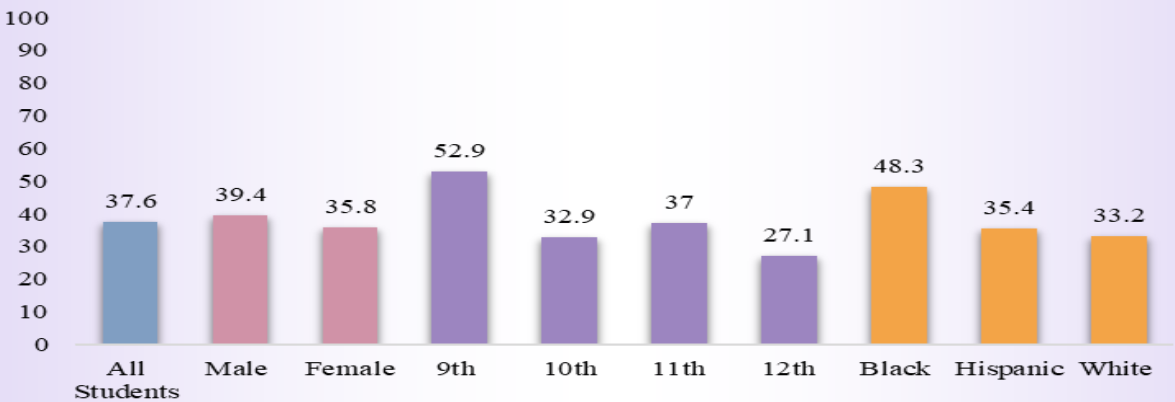
### Sexual Identity



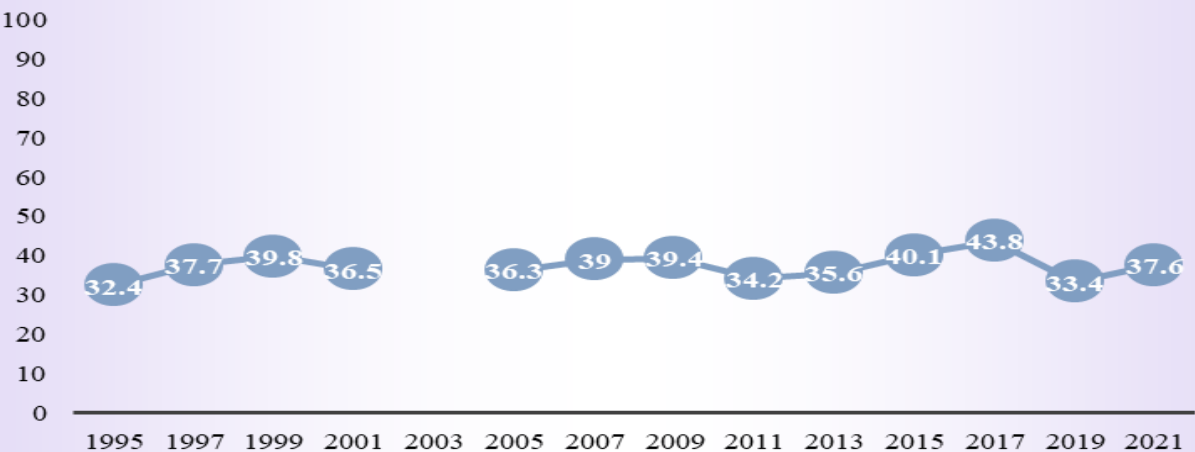
Physical Education Attendance

Statewide, 37.6 percent of students attended physical education (PE) classes on one or more days in an average week when they were in school.

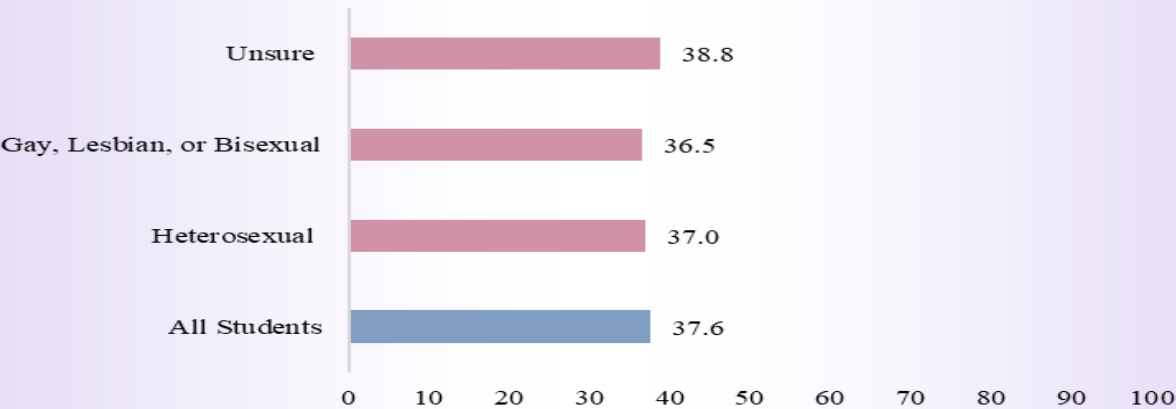
Demographic Breakdown



Trend Data by Year

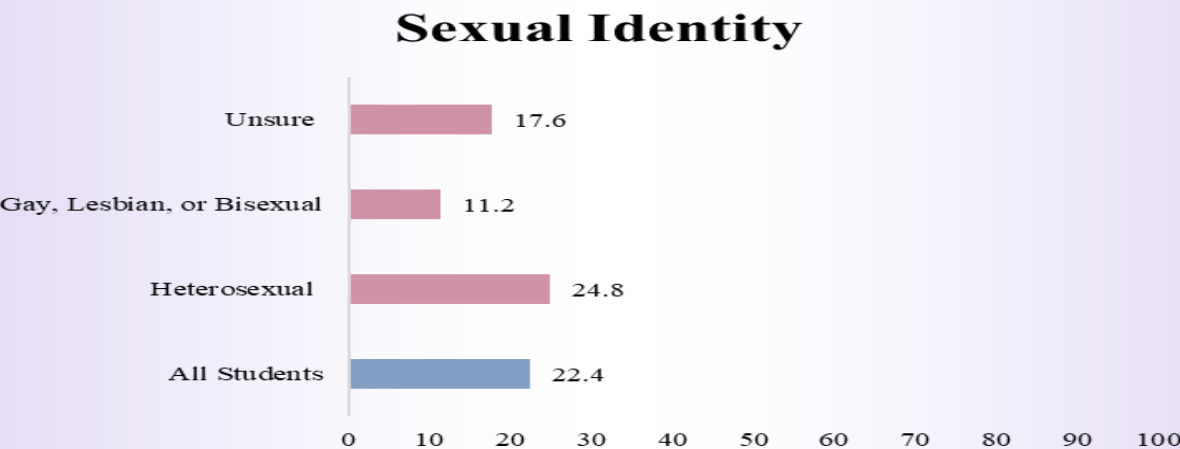
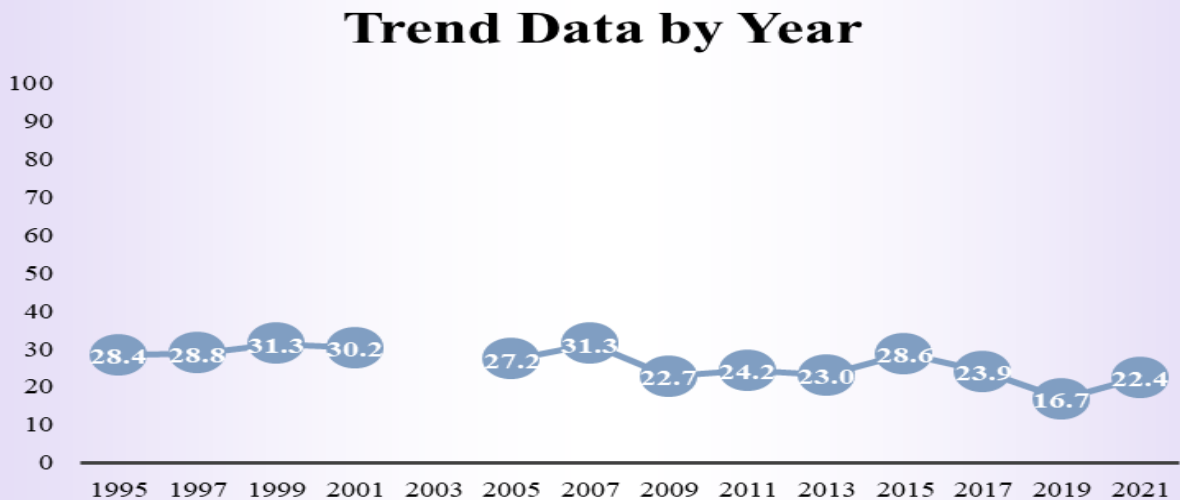
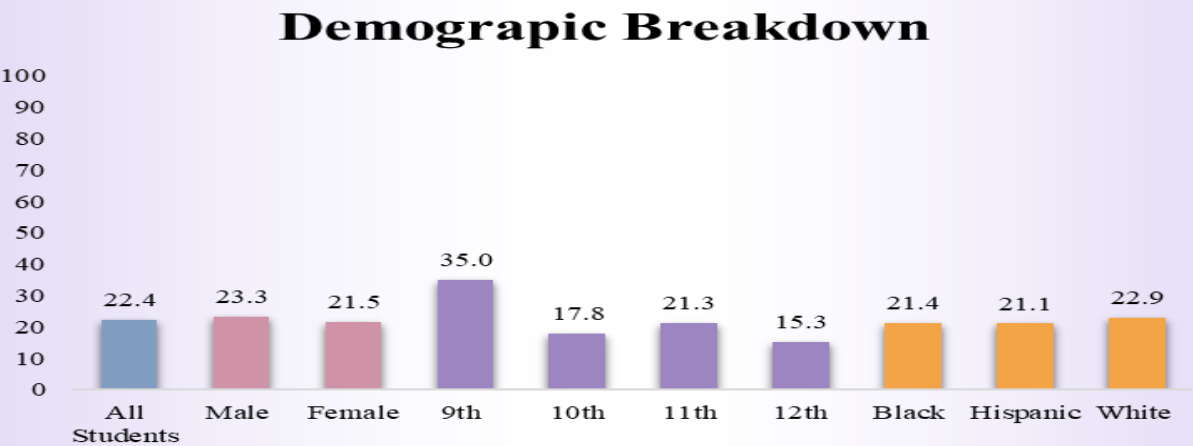


Sexual Identity



Daily Physical Education Attendance

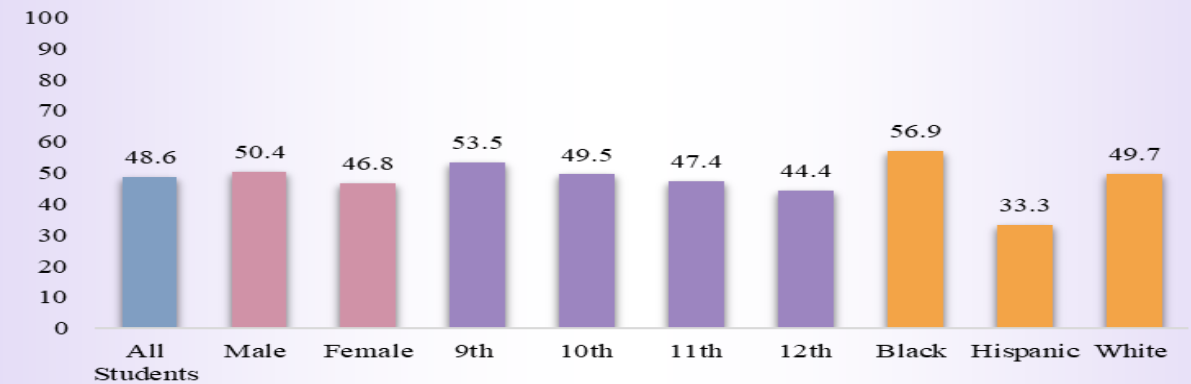
Statewide, 22.4 percent of students attended physical education (PE) classes daily in an average week when they were in school.



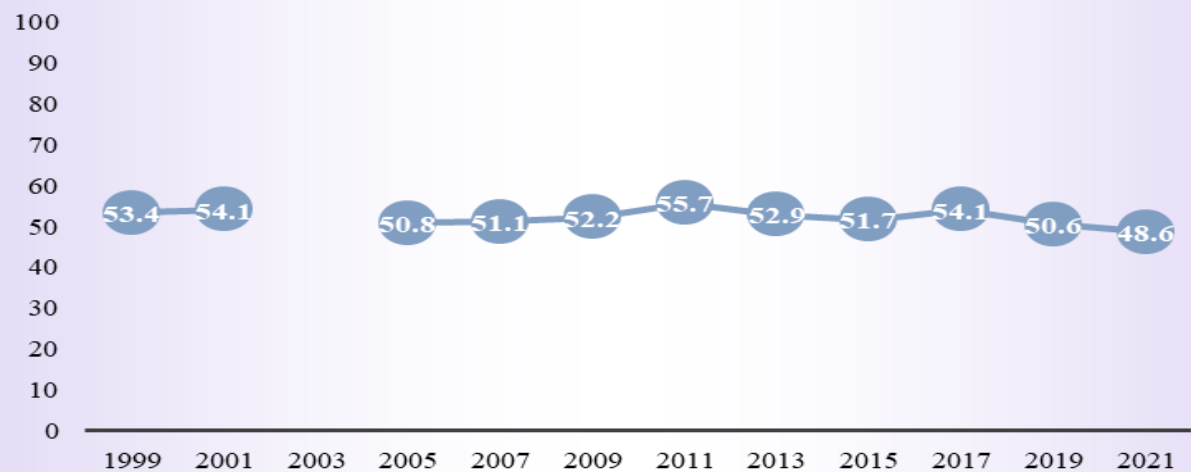
**Played on At least One Sports Team**

Statewide, 48.6 percent of students played on one or more sports teams during the past 12 months.

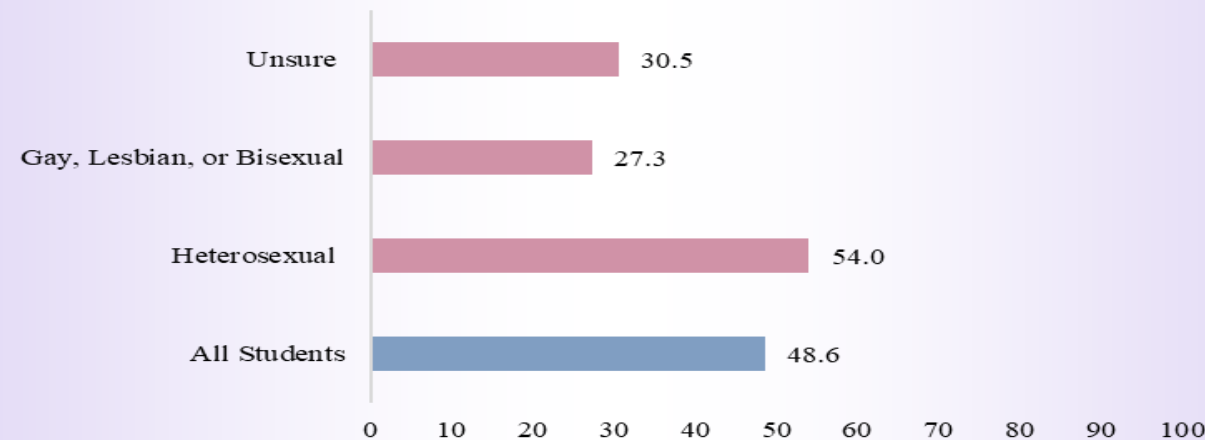
**Demographic Breakdown**



**Trend Data by Year**



**Sexual Identity**



## Other Behaviors

### Other Behaviors: Concussions

#### QUESTION:

86. During the past 12 months, how many times did you have a concussion from playing a sport or being physically active?

#### RATIONALE:

This question measures the prevalence of self-reported concussions from playing sports or being physically active. Compared with older athletes, high school athletes have shown increased susceptibility to concussions and longer recovery times, (183) making concussions among youths playing a sport or being physically active an area of concern. Also of concern are the short-term and long-term sequelae of concussions, which can include cognitive, affective, and behavioral changes. (183) In 2013, the Institute of Medicine (now National Academy of Sciences) produced a report entitled Sports Related Concussions in Youth: Improving the Science, Changing the Culture that challenged CDC to improve the surveillance of sports-related concussions among youth. (183) The report identified a number of gaps in current surveillance efforts. Specifically, current surveillance systems only captured concussions experienced in organized, school-based sports at the high school or college level, or only captured sports-related concussions seen in emergency departments. (183) As a result, there were no comprehensive national incidence estimates of sports- and recreation-related concussions experienced by youth.

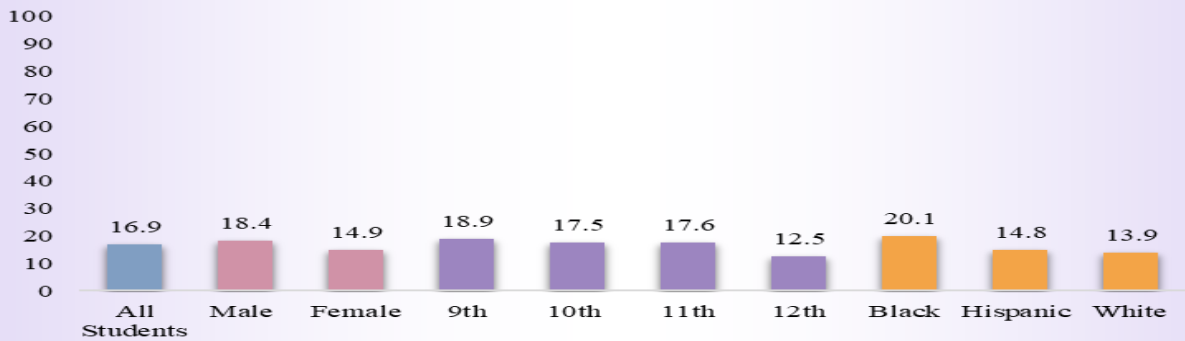
States may be particularly interested in more comprehensive estimates of sports- and recreation related concussions because legislation related to sports concussions was passed in all 50 states within the past 10-12 years. This legislation, commonly referred to as “Return to Play” laws, typically have three core components: concussion education for athletes, parents, and coaches; restrictions on returning to play on the same day of a suspected concussion; and medical clearance prior to returning to play after a concussion. Being able to monitor the incidence of sports- and recreation-related concussions at the state level could allow states to monitor the effects of this legislation as well as the impact of prevention efforts. The 2021 survey will be the third administration of the question and may provide the first opportunity to observe a trend in youth sports/recreation-related concussions. From 2017 to 2021 the rates of concussions have slowly declined.

Among high school students nationwide in 2019, 15% of students experienced a sports- or physical activity-related concussion during the 12 months before the survey.(184)

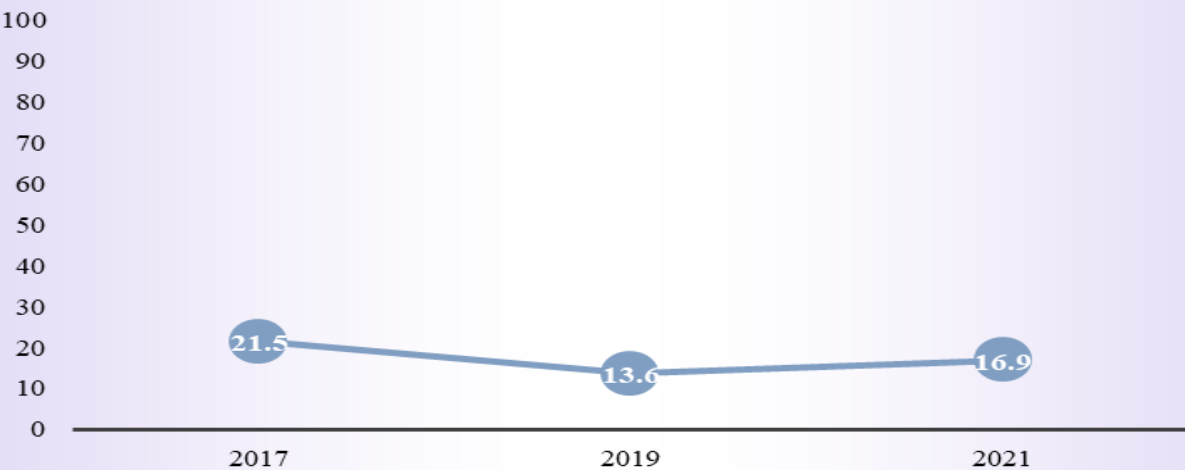
Concussion

Statewide, 16.9 percent of students had a concussions from playing a sport or being physically active during the past 12 months.

Demographic Breakdown



Trend Data by Year



Sexual Identity





## **Other Behaviors: Oral Health**

### **QUESTION:**

89. When was the last time you saw a dentist for a check-up, exam, teeth cleaning, or other dental work?

### **RATIONALE:**

This question measures the prevalence of use of oral health care. YRBS is the only surveillance data source to monitor use of oral health care among high school students at the national, state, and local levels. Past-year dental visit among high school students from YRBS is a key indicator included in the National Oral Health Surveillance System. (196)

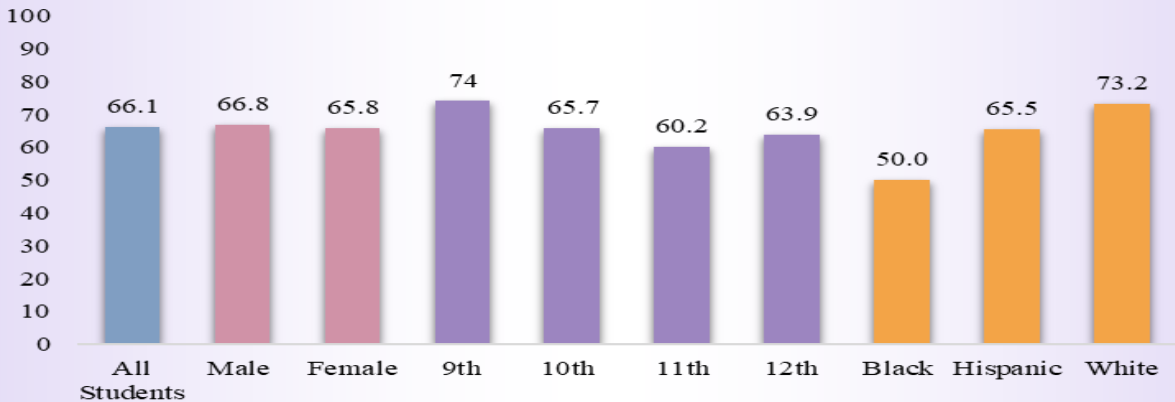
Despite improvements in oral health status in the United States, disparities remain in some population groups as classified by sex, income, age, and race/ethnicity. (197,198) Oral diseases and conditions can occur throughout the life span. (197,198) Nearly every American has experienced the most common oral disease, dental caries. (197,198) Among adolescents aged 12–19 years more than half experienced dental caries in permanent teeth and 1 in 6 had untreated tooth decay in 2011–2016.(199)

Oral health is related to general health. Oral diseases may be associated with other diseases such as diabetes, heart disease and stroke, and adverse pregnancy outcomes. (197) General health risk factors, such as tobacco use and poor dietary behaviors, are also major risk factors for oral diseases. (197) Regular access to oral health care is important to prevention and early detection and control of oral diseases. Dental settings also offer a unique venue to integrate oral health into coordinated prevention and control of chronic diseases.(197,199) According to 2019 YRBS data, nationwide, 76% of students saw a dentist for a check-up, teeth cleaning, or other dental work during the 12 months before the survey.(200) Practicing healthy behaviors (e.g., not using tobacco, not using illegal substances, not drinking soda) was associated with receiving dental care in the past year among high school students.(201)

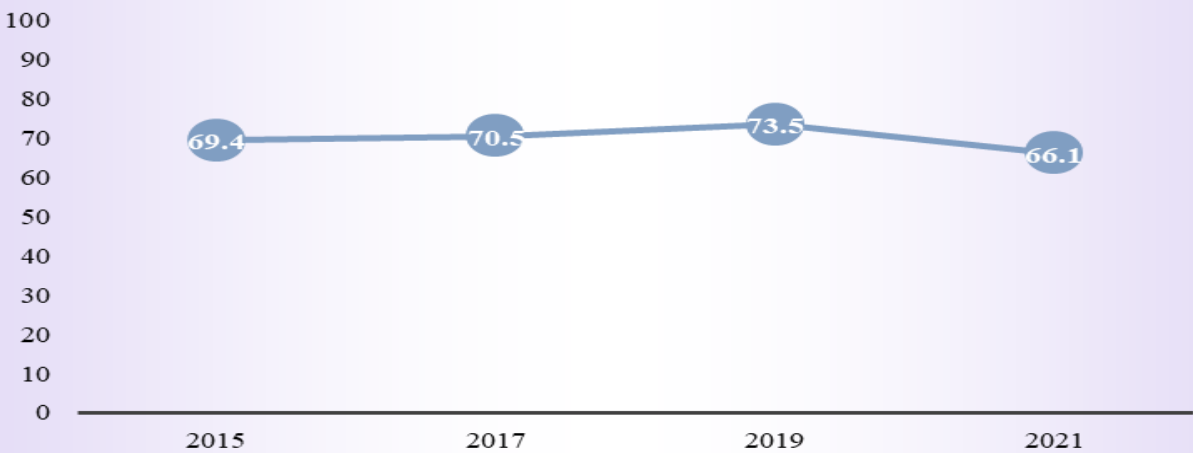
Dental Care

Statewide, 66.1 percent of students saw a dentist during the past 12 months.

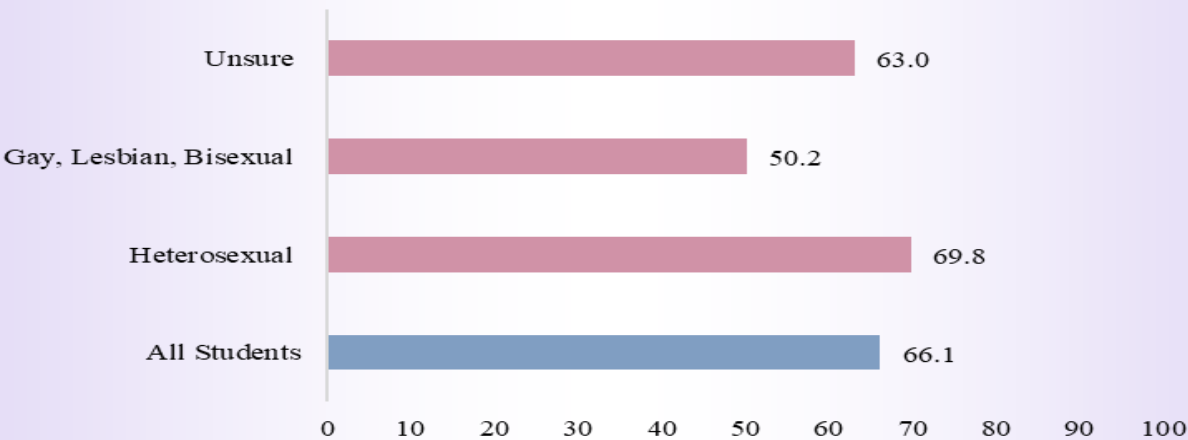
Demographic Breakdown



Trend Data by Year



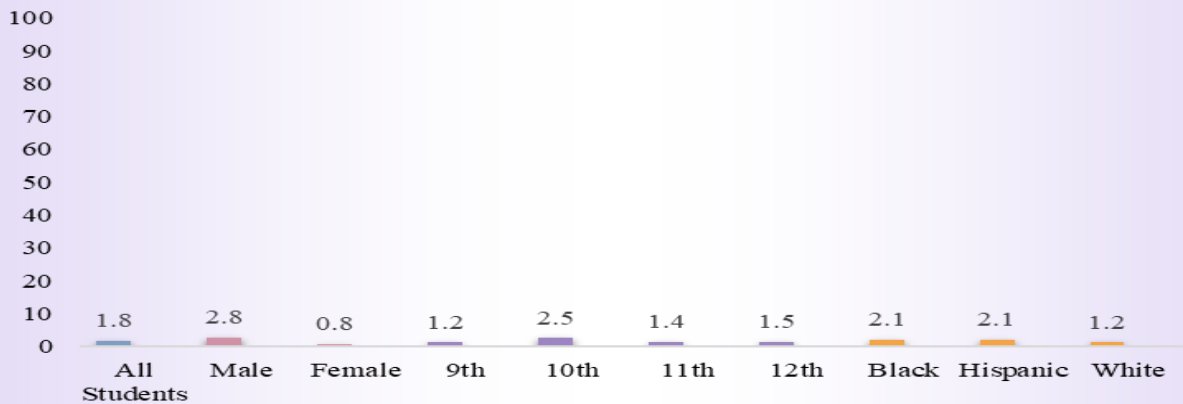
Sexual Identity



Did Not Receive Dental Care

Statewide, 1.8 percent of students never saw a dentist during the past 12 months.

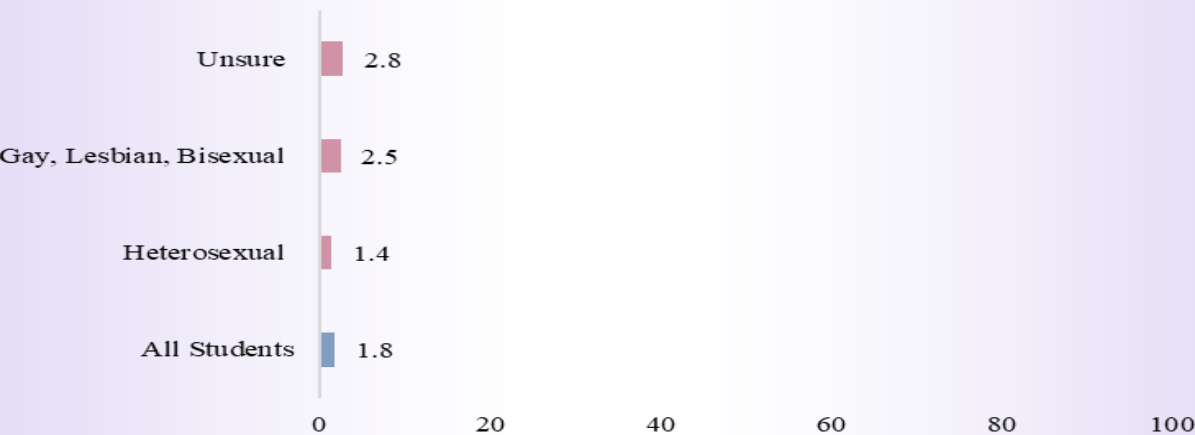
Demographic Breakdown



Trend Data by Year



Sexual Identity



## **Other Behaviors: Sleep**

### **QUESTION:**

91. On an average school night, how many hours of sleep do you get?

### **RATIONALE:**

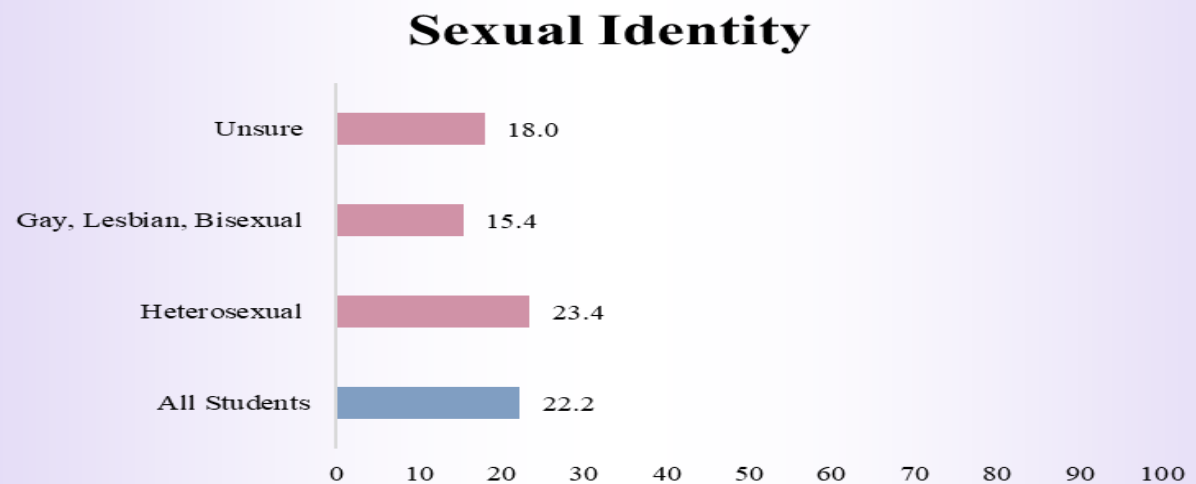
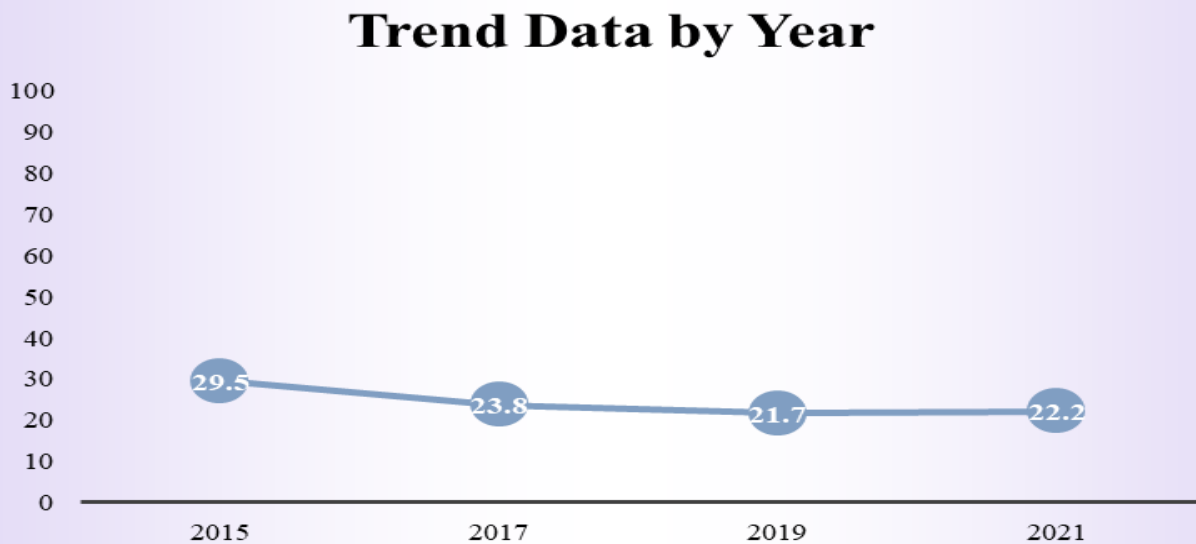
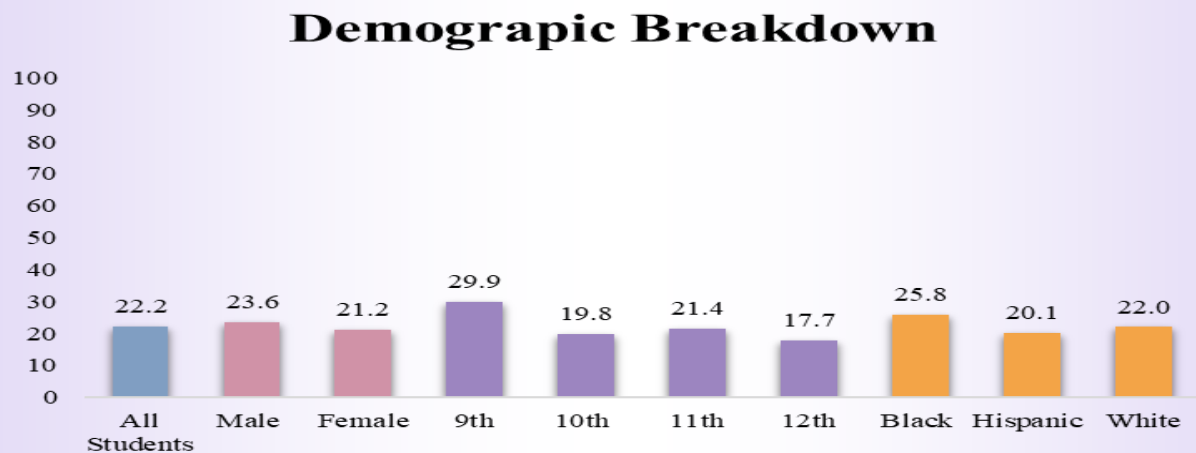
This question measures the amount of sleep students get on an average school night. Sleep is necessary for physical and mental health and is particularly important during adolescence, a phase of rapid biologic growth and development. (202) In 2015, nearly three quarters of high school students reported getting less than the recommended amount of sleep on school nights. (203) Lack of adequate sleep among adolescents is associated with daytime sleepiness, (204,205) falling asleep during class, (206) general inattentiveness, (206) classroom behavioral problems, (206) drowsy driving, (202,204) depressed mood, (202,204,207) headaches, (207) and poor school performance. (208) Evidence tying insufficient sleep to poor health outcomes such as obesity, cardiovascular disease, and diabetes is also growing. (209–211)

Analysis of data from the national YRBS has shown that insufficient sleep is associated with higher odds of current use of cigarettes, marijuana, and alcohol; current sexual activity; seriously considering attempting suicide; feeling sad or hopeless; physical fighting; physical inactivity; obesity; engaging in injury-related risk behaviors; and engaging in unhealthy weight-control behaviors. (212–215)

In 2016, the American Academy of Sleep Medicine recommended that children aged 6–12 years should regularly sleep 9–12 hours per 24 hours and teens aged 13–18 years should sleep 8–10 hours per 24 hours. (216) Among high school students nationwide in 2019, 22% of students got 8 or more hours of sleep on an average school night. (217) The percentage of students getting 8 or more hours of sleep did not change significantly during 2007–2013 (31%–32%) and then decreased significantly during 2013–2019 (32%–22%). (217)

8 Hours of Sleep

Statewide, 22.2 percent of students had 8 or more hours of sleep on average school night.



## **Other Behaviors: Homelessness and Resource Security**

### **QUESTIONS:**

92. During the past 30 days, where did you usually sleep?

93. During the past 30 days, did you ever sleep away from your parents because you were kicked out, ran away, or were abandoned?

94. During the past 30 days, how often did you go hungry because there was not enough food in your home?

### **RATIONALE:**

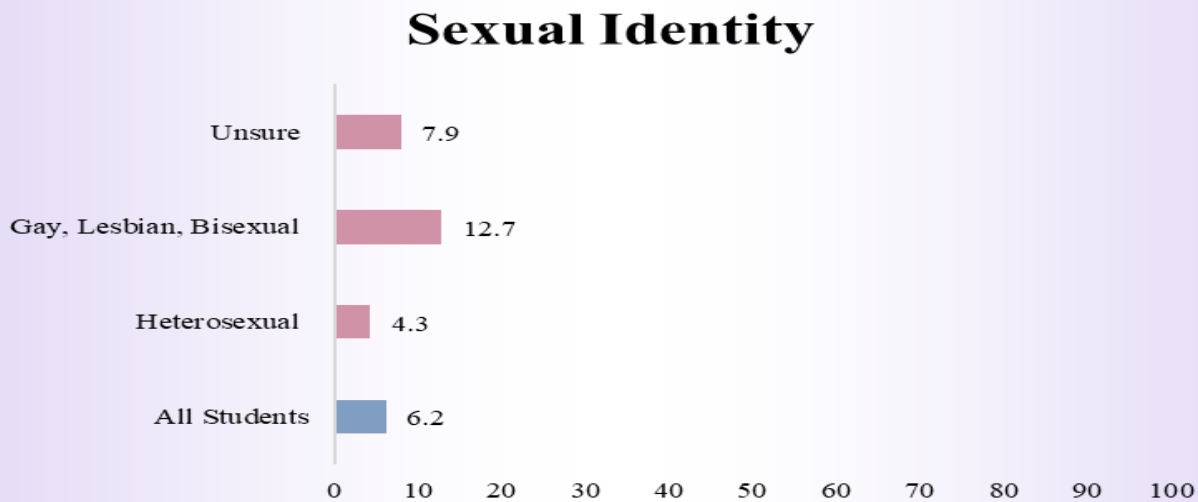
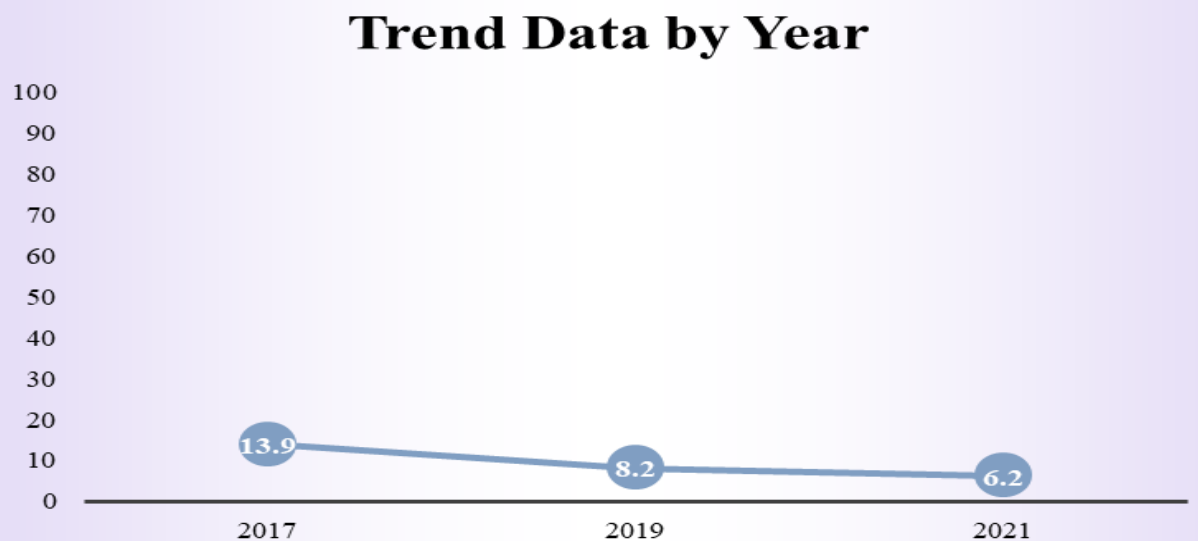
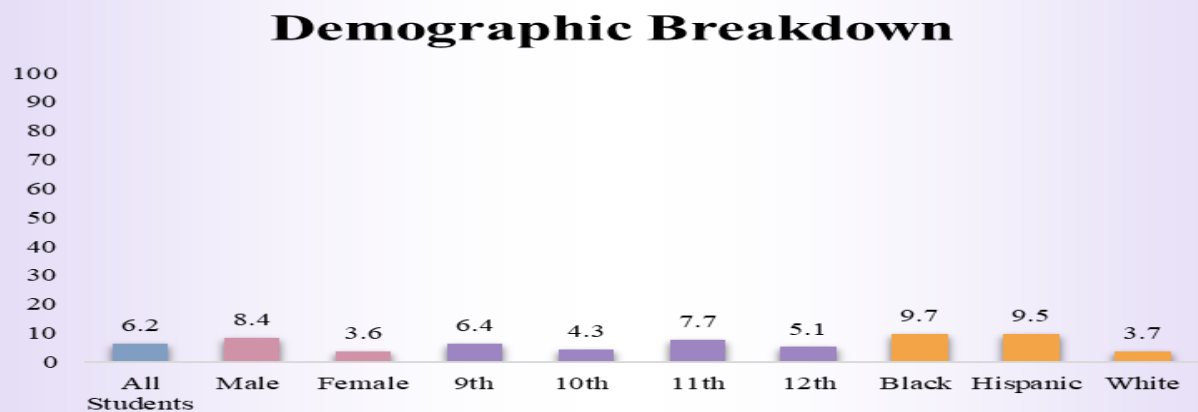
This question measures the percentage of students self-identifying as experiencing homelessness under the definition of homelessness that applies to all public schools under the McKinney Vento Act.(218) The Act requires every local education agency (LEA) in the United States to identify homeless youth in the LEA, and to collect and provide data to the state regarding the number of homeless students in the LEA. Schools use multiple strategies to identify students experiencing homelessness, but even the most, robust strategies miss a large segment of the homeless population, because many parents and students strive to keep their housing situation private, fearing stigma, judgment, child welfare or law enforcement involvement, or other repercussions.

When schools do not identify students experiencing homelessness, those students do not receive critical services available to them under the McKinney-Vento Act, such as school meals, school health and mental health services, access to transportation, and the ability to remain stable in one school. In 2019, 27 states and 7 LEAs included this question about housing status on their state or local YRBS. Including this question on the YRBS has helped states and LEAs generate a more accurate estimate of the extent of student homelessness, giving district administrators the impetus to evaluate and improve their methods for identifying homeless students.

In addition to helping jurisdictions generate a more accurate estimate of the extent of student homelessness, the data resulting from this question has helped illuminate the health risks associated with homelessness. For example, compared to their housed peers, high school students experiencing homelessness are significantly more likely to attempt suicide, to be forced to have sexual intercourse, and to use alcohol and other drugs, and they are less likely to eat breakfast and get adequate sleep. (219) This information highlights the importance of implementing interventions to mitigate those risks. By revealing the supports needed for students experiencing homelessness, YRBS data can help schools increase high school graduation rates of these students, which can help prevent continued homelessness into their young adulthood.(220).

Homelessness

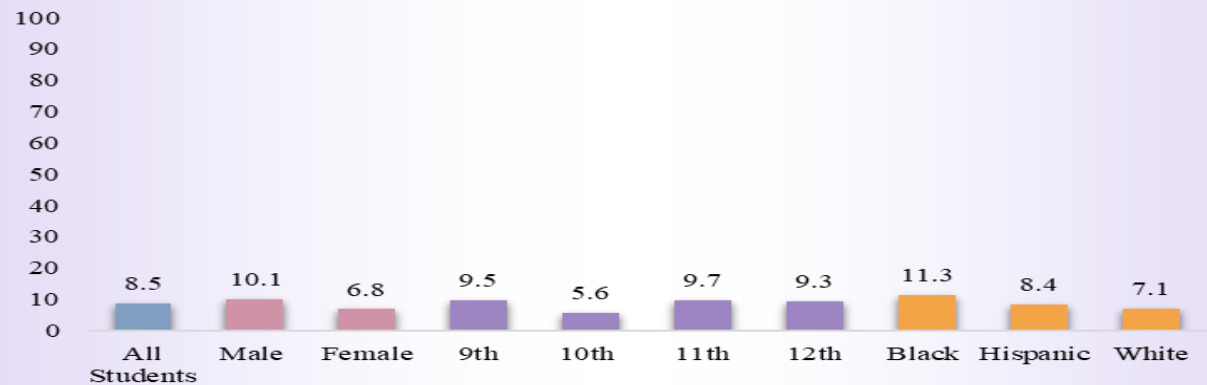
During the past 30 days, 6.2 percent of students did not usually sleep in their parent's or guardian's home.



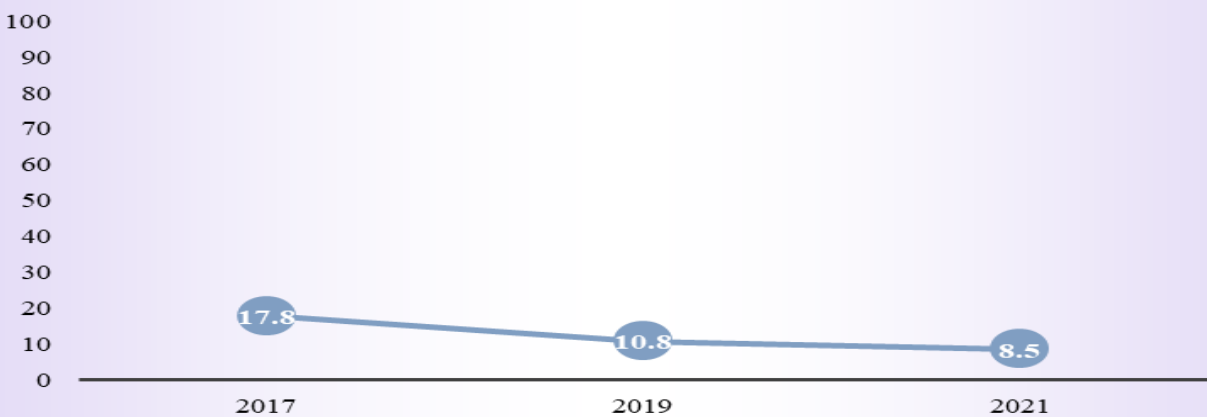
Runaway Youth

During the past 30 days, 8.5 percent of students had slept away from their parents or guardians because they were kicked out, ran away, or were abandoned during the past 30 days.

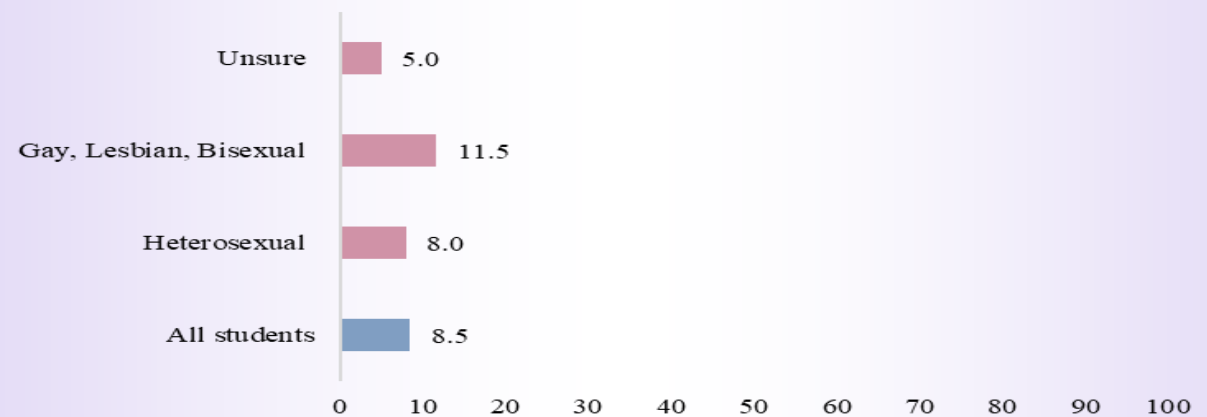
Demographic Breakdown



Trend Data by Year



Sexual Identity

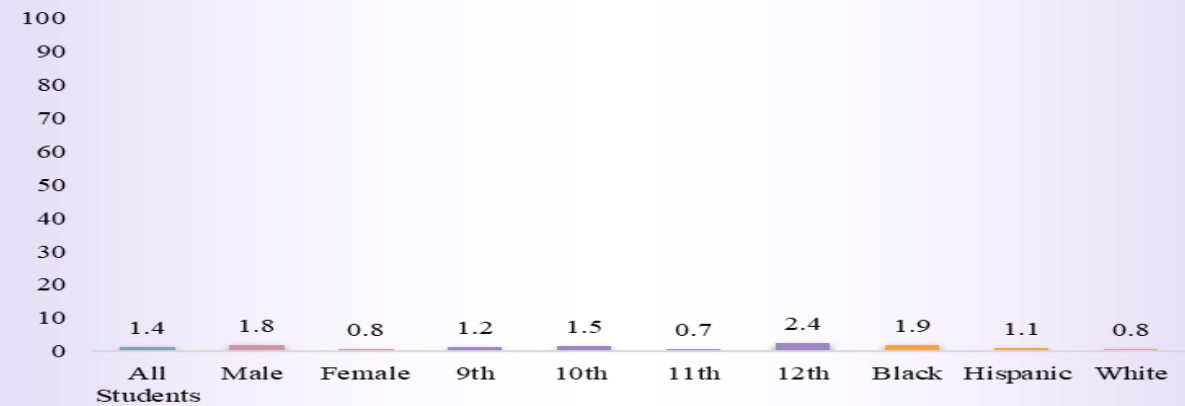




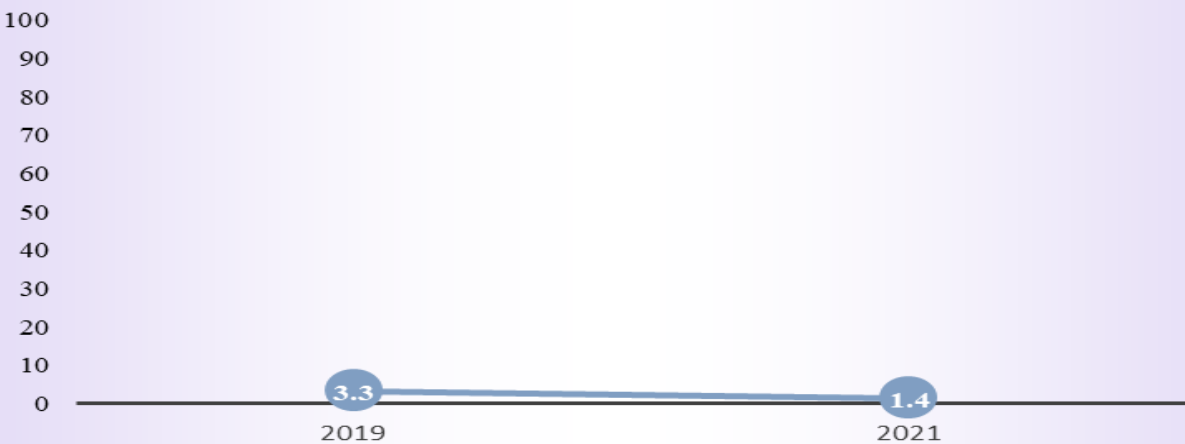
**Food Insecurity**

During the past 30 days, 1.4 percent of students most of the time or always went hungry because there was not enough food in their home.

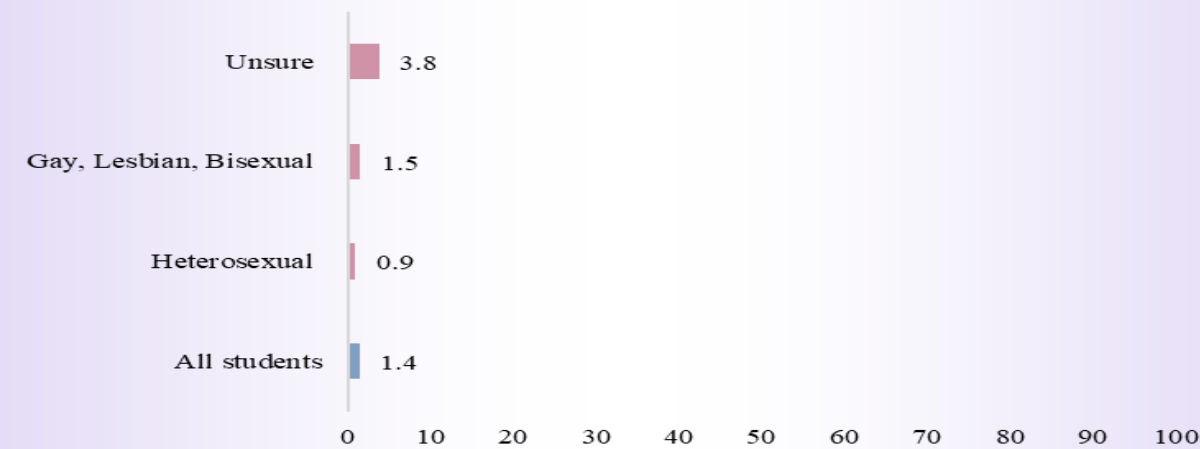
**Demographic Breakdown**



**Trend by Data Year**



**Sexual Identity**



**Other Behaviors: School Environment**

**QUESTIONS:**

95. How often do you feel safe and secure at school?

96. Is there at least one teacher or other adult in your school that you can talk to if you have a problem?

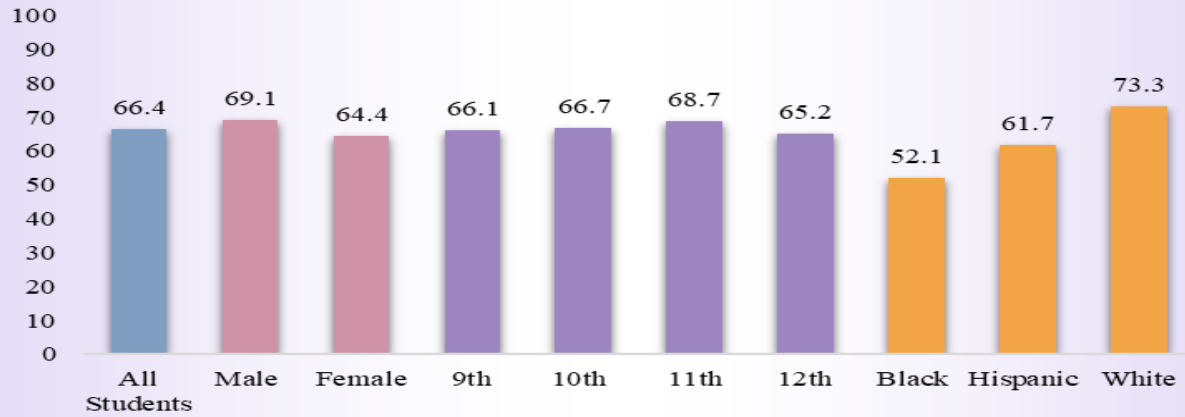
**RATIONALE:**

These questions measure the feelings of safety and the presence of an adult buffer for high school students in Arkansas. At risk students who have even a single caring adult are less likely to engage in high-risk behaviors (227-228) more likely to break abusive cycles in their own families later in life (229). Furthermore, informal supports provide more protection from depression and loneliness in students and adults alike (230).

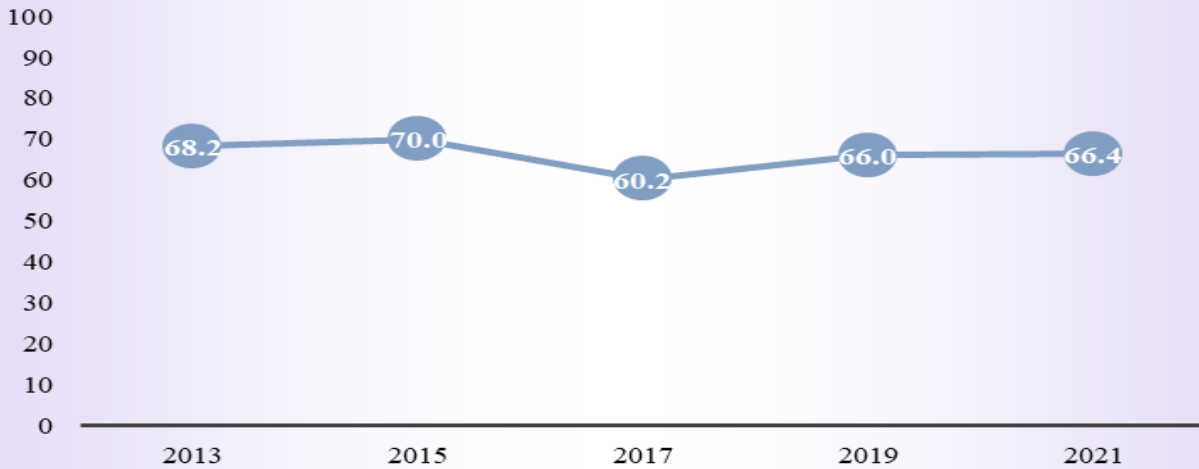
## Most of The Time Felt Safe and Secure on School Property

Statewide, 66.4 percent of students felt safe and secure on school property.

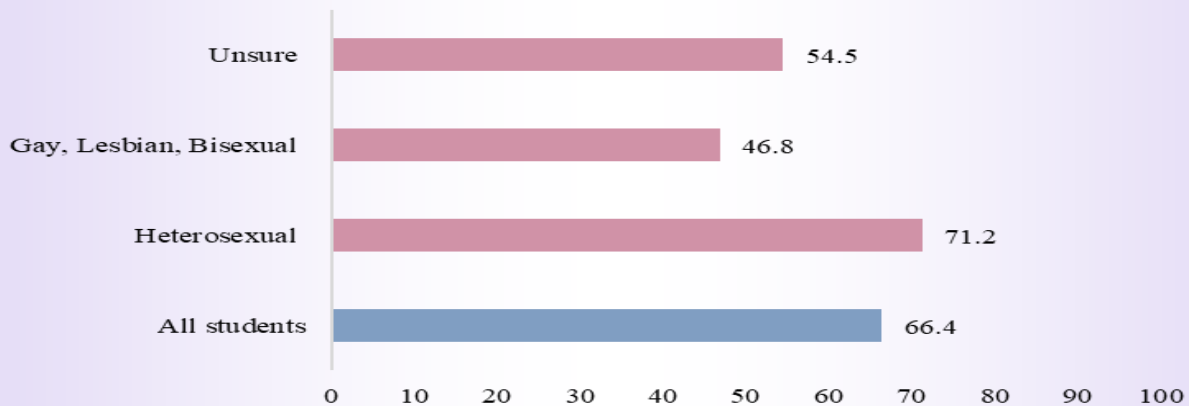
### Demographic Breakdown



### Trend Data by Year

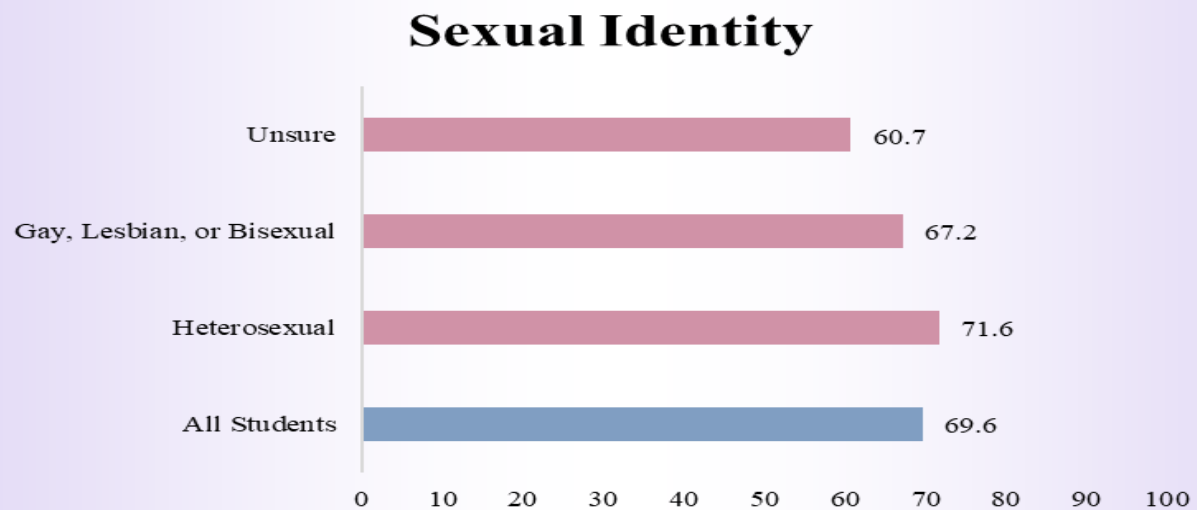
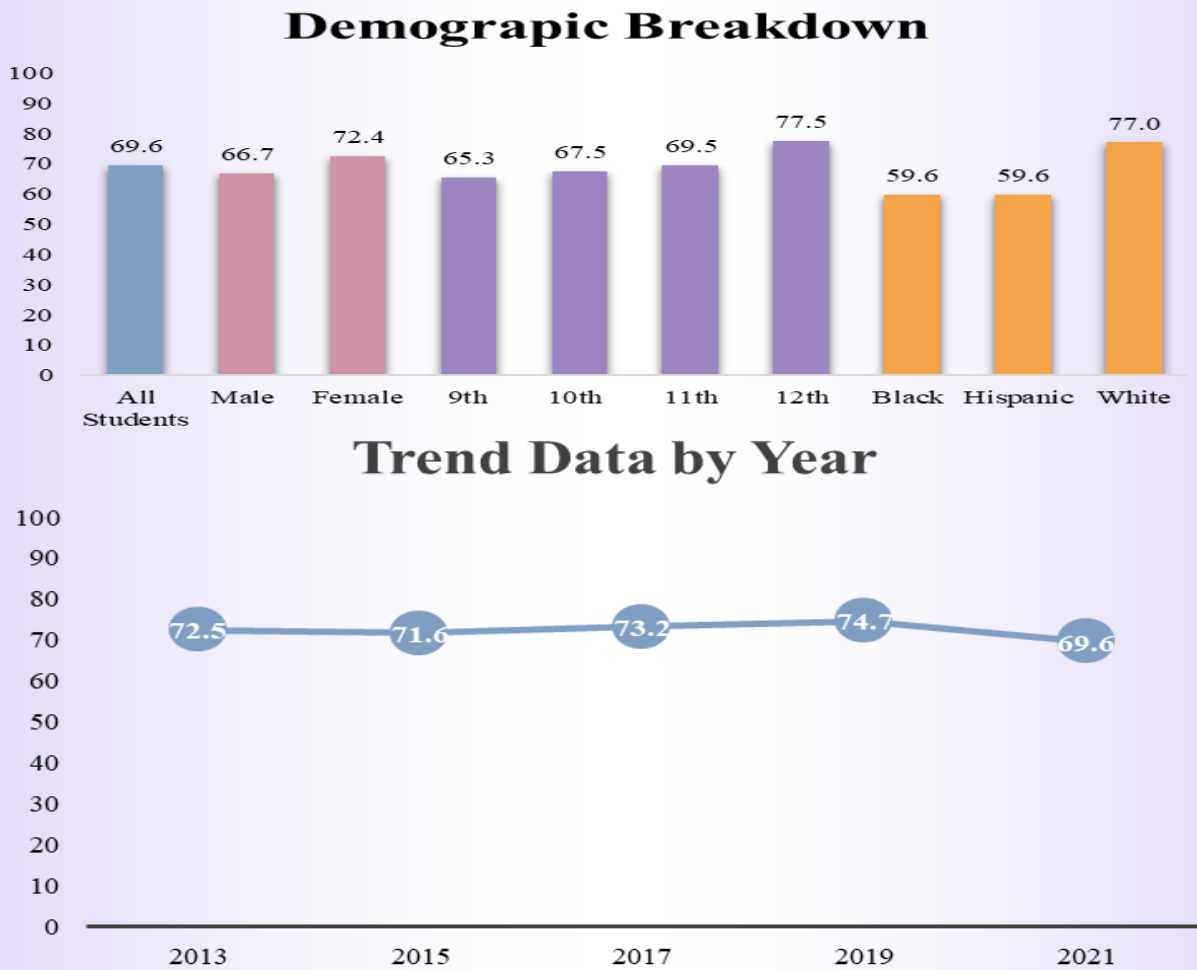


### Sexual Identity



Had a Trusted Adult at School

Statewide, 69.6 percent of students had at least one teacher or other adult at their school that they can talk to if they had a problem.



### **Other Behaviors: Adverse Childhood Experiences**

97. During your life, how often has there been an adult in your household who tried hard to make sure your basic needs were met, such as looking after your safety and making sure you had clean clothes and enough to eat?

98. Have you ever lived with someone who was having a problem with alcohol or drug use?

99. Have you ever been separated from a parent or guardian because they went to jail, prison, or a detention center?

### **RATIONALE:**

These questions measure Adverse Childhood Experiences, or ACEs. ACEs are preventable, potentially traumatic events that occur in childhood (0-17 years) such as neglect, experiencing or witnessing violence, and having a family member attempt or die by suicide. (221) Also included are aspects of a child's environment that can undermine their sense of safety, stability, and bonding, such as growing up in a household with substance use, mental health problems, or instability due to parental separation or incarceration of a parent, sibling or other member of the household.(221) These examples do not comprise an exhaustive list of childhood adversity, as there are other traumatic experiences that could impact health and wellbeing. ACEs often occur together, can result in toxic stress, and are associated with a wide range of adverse behavioral, health, and social outcomes, including substance use, depression, overweight/obesity, lower education and earnings potential, and chronic diseases such as heart disease and cancer. (222)

Negative outcomes from ACEs are not limited to adulthood; many negative health outcomes from ACEs begin in childhood and adolescence. Adolescents who have experienced ACEs are at higher risk of numerous negative health outcomes and risk behaviors, including missing school, poor academic performance, weapon carrying, substance use, risky sexual behavior, overweight or obesity, mental health and suicide risks.(223,224) Numerous studies show a graded dose-response relationship between ACEs and negative health and well-being outcomes; as the number of ACEs increases so does the risk for negative health outcomes.<sup>3</sup>

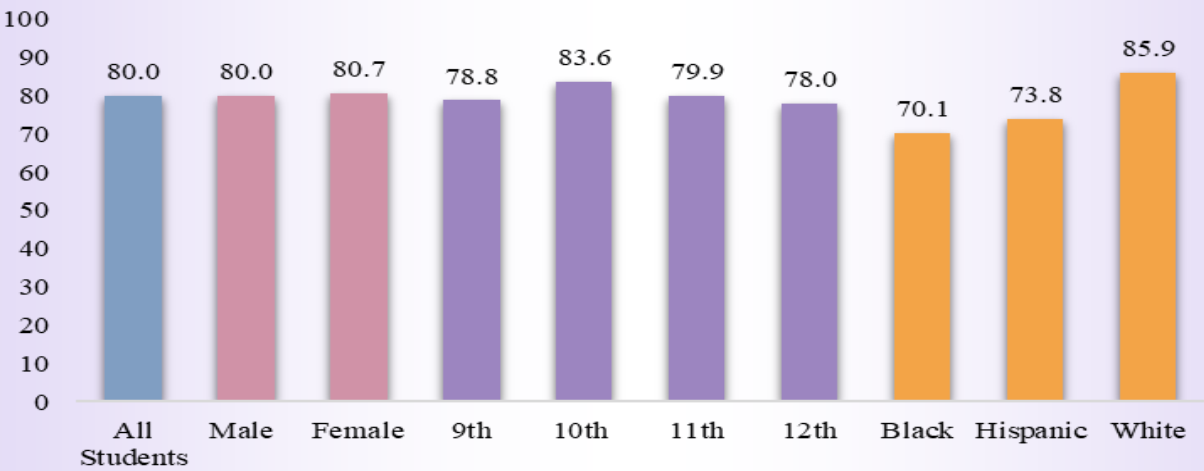
Most information on ACEs has been collected retrospectively from adults reporting on their experiences in childhood.(225) Prevalence estimates of ACEs among adults indicate that ACEs are prevalent; among 214,157 adult participants in 2011-2014 BRFSS, almost two-thirds of surveyed adults reported at least one ACE and more than one in four reported three or more ACEs.(221) Parent-reported data from the [National Survey on Children's Health \(NSCH\)](#) indicates that ACEs are prevalent among youth: in 2017-2018 one in three children aged 0-17 (33.3%) had experienced at least one ACE and 14.1% had experienced two or more ACEs. (226) Importantly, NSCH does not assess exposure to violence and does not collect data directly from the child being impacted. Assessing ACEs in adolescents through the YRBS not only captures *current* prevalence and incidence estimates by self-report, but also provides more timely data for prevention and intervention activities. Given the wide range of other topics covered by the survey, inclusion of ACEs questions on YRBS provides a unique opportunity to contextualize risk and protective factors, particularly among populations most at risk.

Collecting surveillance data on specific ACEs among youth is critical for better characterizing the current burden of ACEs, planning for specific prevention activities, and understanding the impact of our prevention activities on the specific ACEs experienced by youth. While a child's cumulative ACEs load is associated with adverse lifelong health outcomes, there are limitations to collecting data only via this approach. For example, important risk and protective factors may vary across the specific ACEs, and a growing body of literature suggests that there may be different long-term effects of some ACEs relative to others. Depending on the specific ACE burden in a community, effective prevention activities or needed services may be tailored to the needs of the specific community. For example, communities with a high burden of child physical abuse may require different prevention activities or services from those that report high burden of parental substance use or abuse. Knowledge of the burden of specific ACEs among youth can help better characterize the impact of ACEs, and plan for ACEs prevention.

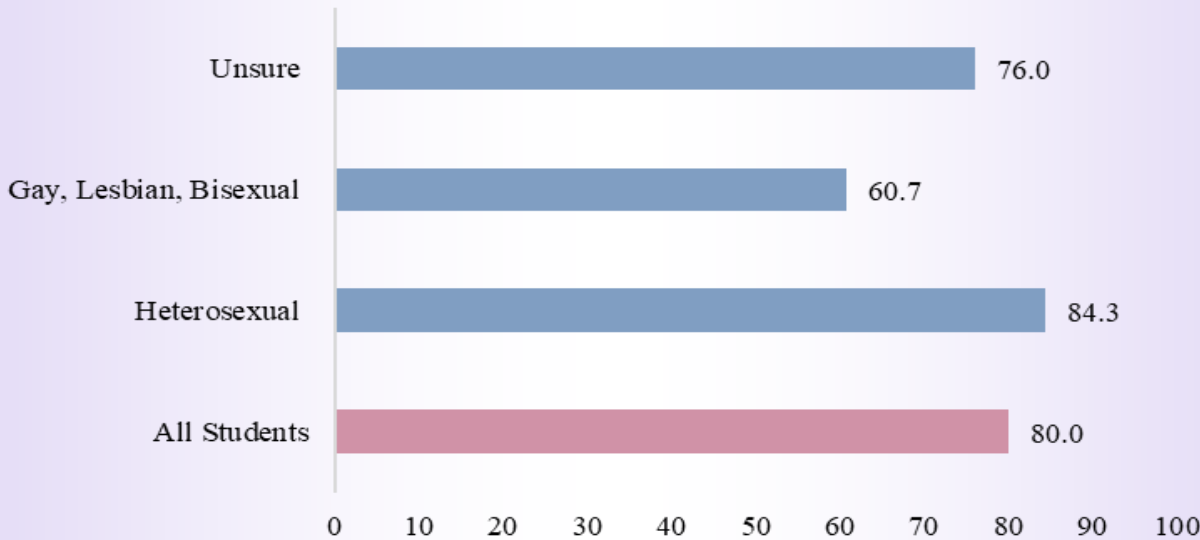
Basic Needs

Statewide, 80.0 percent of students reported that most of the time or always there has been an adult in their household who tried hard to make sure their basic needs were met (such as looking after their safety and making sure they had clean clothes and enough to eat, during their life).

Demographic Breakdown



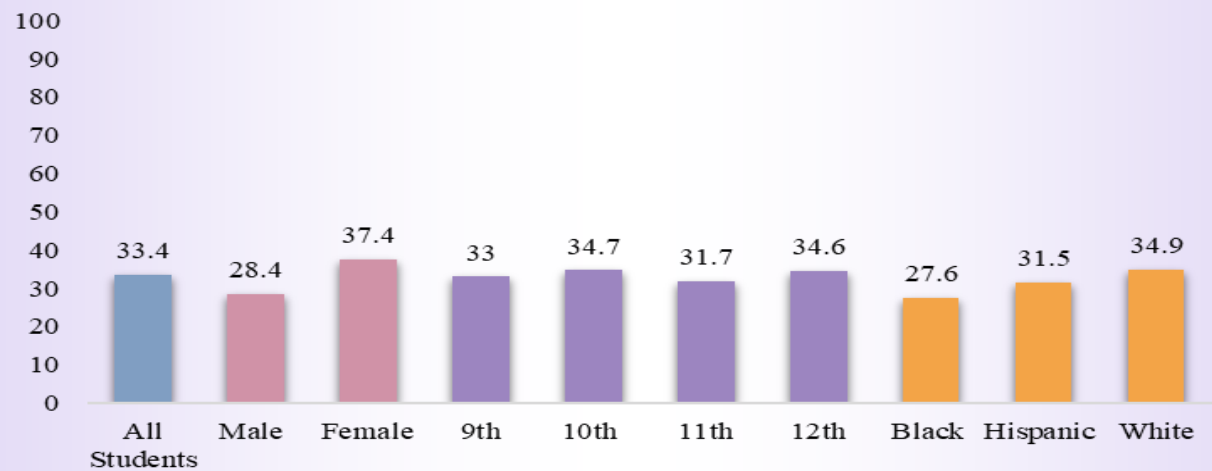
Sexual Identity



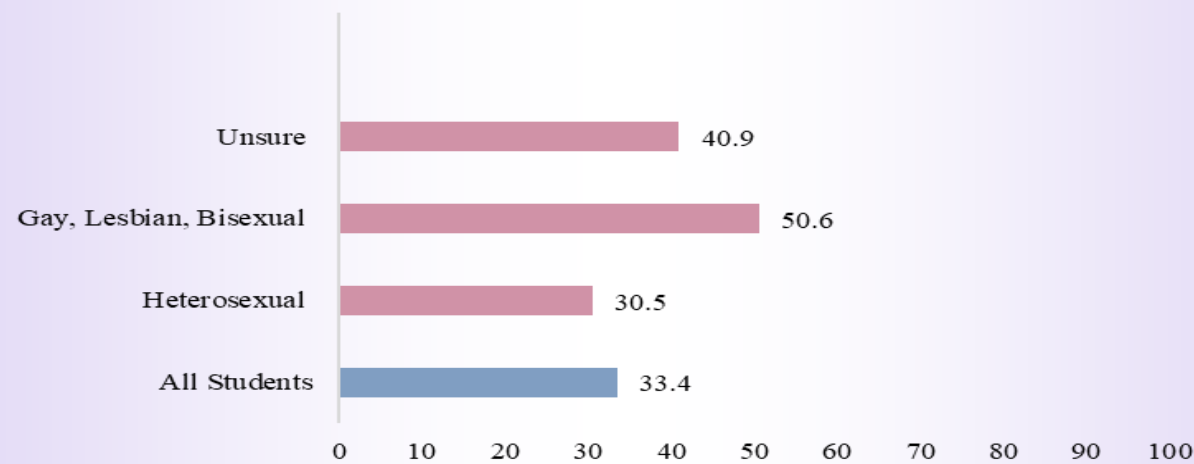
Lived With Someone Who Had Substance Use Disorder

Statewide, 33.4 percent of students reported that they have ever lived with someone who was having a problem with alcohol or drug use.

Demographic Breakdown



Sexual Identity

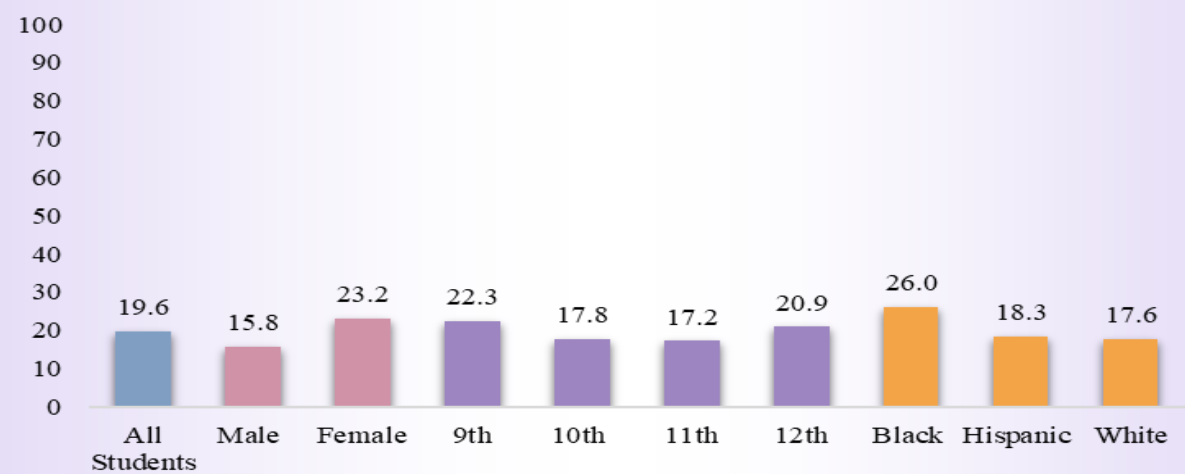




Separated from a Parent or Guardian

Statewide, 19.6 percent of students reported they have been separated from a parent or guardian because they went to jail, prison, or a detention center.

Demographic Breakdown



Sexual Identity



# 2021 Arkansas Youth Risk Behavior Survey

This survey is about health behavior. It has been developed so you can tell us what you do that may affect your health. The information you give will be used to improve health education for young people like yourself.

DO NOT write your name on this survey. The answers you give will be kept private. No one will know what you write. Answer the questions based on what you really do.

Completing the survey is voluntary. Whether or not you answer the questions will not affect your grade in this class. If you are not comfortable answering a question, just leave it blank.

The questions that ask about your background will be used only to describe the types of students completing this survey. The information will not be used to find out your name. No names will ever be reported.

Make sure to read every question. Fill in the ovals completely. When you are finished, follow the instructions of the person giving you the survey.

**Thank you very much for your help.**

**Directions**

- Use a #2 pencil only.
- Make dark marks.
- Fill in a response like this: A B ● D.
- If you change your answer, erase your old answer completely.

1. How old are you?

- A. 12 years old or younger
- B. 13 years old
- C. 14 years old
- D. 15 years old
- E. 16 years old
- F. 17 years old
- G. 18 years old or older

2. What is your sex?

- A. Female
- B. Male

3. In what grade are you?

- A. 9th grade
- B. 10th grade
- C. 11th grade
- D. 12th grade
- E. Ungraded or other grade

4. Are you Hispanic or Latino?

- A. Yes
- B. No

5. What is your race? (Select one or more responses.)

- A. American Indian or Alaska Native
- B. Asian
- C. Black or African American
- D. Native Hawaiian or Other Pacific Islander
- E. White

6. How tall are you without your shoes on? Directions: Write your height in the shaded blank boxes. Fill in the matching oval below each number.

Example:

Height	
Feet	Inches
5	7
3	1
4	2
●	3
6	4
7	5
	6
	●
	8
	9
	10
	11

7. How much do you weigh without your shoes on?

Directions: Write your weight in the shaded blank boxes. Fill in the matching oval below each number.

1	1	0
0	0	●
●	●	1
2	2	2
3	3	3
	4	4
	5	5
	6	6
	7	7
	8	8
	9	9

The next 5 questions ask about safety.

8. How often do you wear a seat belt when **riding** in a car driven by someone else?

- A. Never
- B. Rarely
- C. Sometimes
- D. Most of the time
- E. Always

9. During the past 30 days, how many times did you **ride** in a car or other vehicle **driven by someone who had been drinking alcohol**?

- A. 0 times
- B. 1 time
- C. 2 or 3 times
- D. 4 or 5 times
- E. 6 or more times

10. During the past 30 days, how many times did you drive a car or other vehicle **when you had been drinking alcohol**?

- A. I did not drive a car or other vehicle during the past 30 days
- B. 0 times
- C. 1 time
- D. 2 or 3 times
- E. 4 or 5 times
- F. 6 or more times

11. During the past 30 days, on how many days did you **text or e-mail** while **driving** a car or other vehicle?

- A. I did not drive a car or other vehicle during the past 30 days
- B. 0 days
- C. 1 or 2 days
- D. 3 to 5 days
- E. 6 to 9 days
- F. 10 to 19 days
- G. 20 to 29 days
- H. All 30 days

12. **When you rode an all-terrain vehicle (ATV)** during the past 12 months, how often did you wear a helmet?

- A. I did not ride an ATV during the past 12 months
- B. Never wore a helmet
- C. Rarely wore a helmet
- D. Sometimes wore a helmet
- E. Most of the time wore a helmet
- F. Always wore a helmet

The next 12 questions ask about violence-related behaviors and experiences.

13. During the past 30 days, on how many days did you carry **a weapon** such as a gun, knife, or club **on school property**?

- A. 0 days
- B. 1 day
- C. 2 or 3 days
- D. 4 or 5 days
- E. 6 or more days

14. **During the past 12 months**, on how many days did you carry **a gun**? (Do **not** count the days when you carried a gun only for hunting or for a sport, such as target shooting.)

- A. 0 days
- B. 1 day
- C. 2 or 3 days
- D. 4 or 5 days
- E. 6 or more days

15. During the past 30 days, on how many days did you **not** go to school because you felt you would be unsafe at school or on your way to or from school?

- A. 0 days
- B. 1 day
- C. 2 or 3 days
- D. 4 or 5 days
- E. 6 or more days

16. During the past 12 months, how many times has someone threatened or injured you with a **weapon** such as a gun, knife, or club **on school property**?

- A. 0 times
- B. 1 time
- C. 2 or 3 times
- D. 4 or 5 times
- E. 6 or 7 times F. 8 or 9 times
- G. 10 or 11 times
- H. 12 or more times

17. During the past 12 months, how many times were you in a **physical fight**?

- A. 0 times
- B. 1 time
- C. 2 or 3 times
- D. 4 or 5 times
- E. 6 or 7 times
- F. 8 or 9 times
- G. 10 or 11 times
- H. 12 or more times

18. During the past 12 months, how many times were you in a **physical fight on school property**?

- A. 0 times
- B. 1 time
- C. 2 or 3 times
- D. 4 or 5 times
- E. 6 or 7 times
- F. 8 or 9 times
- G. 10 or 11 times
- H. 12 or more times

19. Have you ever seen someone get physically attacked, beaten, stabbed, or shot in your neighborhood?

- A. Yes
- B. No

20. Have you ever been physically forced to have sexual intercourse when you did not want to?

- A. Yes
- B. No

21. During the past 12 months, how many times did **anyone** force you to do sexual things that you did not want to do? (Count such things as kissing, touching, or being physically forced to have sexual intercourse.)

- A. 0 times
- B. 1 time
- C. 2 or 3 times
- D. 4 or 5 times
- E. 6 or more times

22. During the past 12 months, how many times did **someone you were dating or going out with** force you to do sexual things that you did not want to do? (Count such things as kissing, touching, or being physically forced to have sexual intercourse.)

- A. I did not date or go out with anyone during the past 12 months
- B. 0 times
- C. 1 time
- D. 2 or 3 times
- E. 4 or 5 times
- F. 6 or more times

23. During the past 12 months, how many times did **someone you were dating or going out with** physically hurt you on purpose? (Count such things as being hit, slammed into something, or injured with an object or weapon.)

- A. I did not date or go out with anyone during the past 12 months
- B. 0 times
- C. 1 time
- D. 2 or 3 times
- E. 4 or 5 times
- F. 6 or more times

24. During the past 12 months, how many times has someone stolen or deliberately damaged your property such as your car, clothing, or books **on school property**?

- A. 0 times
- B. 1 time
- C. 2 or 3 times
- D. 4 or 5 times
- E. 6 or 7 times
- F. 8 or 9 times
- G. 10 or 11 times
- H. 12 or more times

**The next 4 questions ask about bullying. Bullying is when 1 or more students tease, threaten, spread rumors about, hit, shove, or hurt another student over and over again. It is not bullying when 2 students of about the same strength or power argue or fight or tease each other in a friendly way.**

25. During the past 12 months, have you ever been bullied **on school property**?

- A. Yes
- B. No

26. During the past 12 months, have you ever been **electronically** bullied? (Count being bullied through texting, Instagram, Facebook, or other social media.)

- A. Yes
- B. No

27. During the past 12 months, have you ever been the victim of teasing or name calling because someone thought you were gay, lesbian, or bisexual?

- A. Yes
- B. No

28. Do you agree or disagree that harassment and bullying by other students is a problem at your school?

- A. Strongly agree
- B. Agree
- C. Not sure
- D. Disagree
- E. Strongly disagree

**The next 5 questions ask about sad feelings and attempted suicide. Sometimes people feel so depressed about the future that they may consider attempting suicide, that is, taking some action to end their own life.**

29. During the past 12 months, did you ever feel so sad or hopeless almost every day for **two weeks or more in a row** that you stopped doing some usual activities?

- A. Yes
- B. No

30. During the past 12 months, did you ever **seriously** consider attempting suicide?

- A. Yes
- B. No

31. During the past 12 months, did you make a plan about how you would attempt suicide?

- A. Yes
- B. No

32. During the past 12 months, how many times did you actually attempt suicide?

- A. 0 times
- B. 1 time
- C. 2 or 3 times
- D. 4 or 5 times
- E. 6 or more times

33. **If you attempted suicide** during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?

- A. **I did not attempt suicide** during the past 12 months
- B. Yes
- C. No

**The next 5 questions ask about cigarette smoking.**

34. Have you ever tried cigarette smoking, even one or two puffs?

- A. Yes
- B. No

35. How old were you when you first tried cigarette smoking, even one or two puffs?

- A. I have never tried cigarette smoking, not even one or two puffs
- B. 8 years old or younger
- C. 9 or 10 years old
- D. 11 or 12 years old
- E. 13 or 14 years old
- F. 15 or 16 years old
- G. 17 years old or older

36. During the past 30 days, on how many days did you smoke cigarettes?

- A. 0 days
- B. 1 or 2 days
- C. 3 to 5 days
- D. 6 to 9 days
- E. 10 to 19 days
- F. 20 to 29 days
- G. All 30 days

37. During the past 30 days, on the days you smoked, how many cigarettes did you smoke **per day**?

- A. I did not smoke cigarettes during the past 30 days
- B. Less than 1 cigarette per day
- C. 1 cigarette per day
- D. 2 to 5 cigarettes per day
- E. 6 to 10 cigarettes per day
- F. 11 to 20 cigarettes per day
- G. More than 20 cigarettes per day

38. During the past 30 days, how did you usually get your own cigarettes? (Select only one response.)

- A. I did not smoke cigarettes during the past 30 days
- B. I bought them in a store such as a convenience store, super-market, discount store, or gas station
- C. I got them on the Internet
- D. I gave someone else money to buy them for me
- E. I borrowed (or bummed) them from someone else
- F. A person 18 years old or older gave them to me
- G. I took them from a store or family member
- H. I got them some other way

**The next 3 questions ask about electronic vapor products, such as JUUL, SMOK, Suorin, Vuse, and blu. Electronic vapor products include e-cigarettes, vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods.**

39. Have you ever used an electronic vapor product?

- A. Yes
- B. No

40. During the past 30 days, on how many days did you use an electronic vapor product?

- A. 0 days
- B. 1 or 2 days
- C. 3 to 5 days
- D. 6 to 9 days
- E. 10 to 19 days
- F. 20 to 29 days
- G. All 30 days



41. During the past 30 days, how did you **usually** get your electronic vapor products? (Select only **one** response.)

- A. I did not use any electronic vapor products during the past 30 days
- B. I got or bought them from a friend, family member, or someone else
- C. I bought them myself in a vape shop or tobacco shop
- D. I bought them myself in a convenience store, supermarket, discount store, or gas station
- E. I bought them myself at a mall or shopping center kiosk or stand
- F. I bought them myself on the Internet, such as from a product website, vape store website, or other website like eBay, Amazon, Facebook Marketplace, or Craigslist
- G. I took them from a store or another person
- H. I got them in some other way

**The next 2 questions ask about other tobacco products.**

42. During the past 30 days, on how many days did you use **chewing tobacco, snuff, dip, snus, or dissolvable tobacco products**, such as Copenhagen, Grizzly, Skoal, or Camel Snus? (Do **not** count any electronic vapor products.)

- A. 0 days
- B. 1 or 2 days
- C. 3 to 5 days
- D. 6 to 9 days
- E. 10 to 19 days
- F. 20 to 29 days
- G. All 30 days

43. During the past 30 days, on how many days did you smoke **cigars, cigarillos, or little cigars**?

- A. 0 days
- B. 1 or 2 days
- C. 3 to 5 days
- D. 6 to 9 days
- E. 10 to 19 days
- F. 20 to 29 days
- G. All 30 days

**The next question asks about all tobacco products. Please consider cigarettes, electronic vapor products, smokeless tobacco (chewing tobacco, snuff, dip, snus, or dissolvable tobacco products), cigars (including little cigars or cigarillos), shisha or hookah tobacco, and pipe tobacco when answering this question.**

44. During the past 12 months, did you ever try **to quit** using **all** tobacco products?

- A. I did not use cigarettes, electronic vapor products, smokeless tobacco, cigars, shisha or hookah tobacco, or pipe tobacco during the past 12 months
- B. Yes
- C. No

**The next 5 questions ask about drinking alcohol. This includes drinking beer, wine, flavored alcoholic beverages, and liquor such as rum, gin, vodka, or whiskey.**

**For these questions, drinking alcohol does not include drinking a few sips of wine for religious purposes.**

45. How old were you when you had your first drink of alcohol other than a few sips?

- A. I have never had a drink of alcohol other than a few sips
- B. 8 years old or younger
- C. 9 or 10 years old
- D. 11 or 12 years old
- E. 13 or 14 years old
- F. 15 or 16 years old
- G. 17 years old or older

46. During the past 30 days, on how many days did you have at least one drink of alcohol?

- A. 0 days
- B. 1 or 2 days
- C. 3 to 5 days
- D. 6 to 9 days
- E. 10 to 19 days
- F. 20 to 29 days
- G. All 30 days



47. During the past 30 days, on how many days did you have **4** or more drinks of alcohol in a row, that is, within a couple of hours (if you are **female**) or **5** or more drinks of alcohol in a row, that is, within a couple of hours (if you are **male**)?

- A. 0 days
- B. 1 day
- C. 2 days
- D. 3 to 5 days
- E. 6 to 9 days
- F. 10 to 19 days
- G. 20 or more days

48. During the past 30 days, what is the largest number of alcoholic drinks you had in a row, that is, within a couple of hours?

- A. I did not drink alcohol during the past 30 days
- B. 1 or 2 drinks
- C. 3 drinks
- D. 4 drinks
- E. 5 drinks
- F. 6 or 7 drinks
- G. 8 or 9 drinks
- H. 10 or more drinks

49. During the past 30 days, how did you **usually** get the alcohol you drank?

- A. I did not drink alcohol during the past 30 days
- B. I bought it in a store such as a liquor store, convenience store, supermarket, discount store, or gas station
- C. I bought it at a restaurant, bar, or club
- D. I bought it at a public event such as a concert or sporting event
- E. I gave someone else money to buy it for me
- F. Someone gave it to me
- G. I took it from a store or family member
- H. I got it some other way

**The next 3 questions ask about marijuana use. Marijuana also is called pot or weed. For these questions, do not count CBD-only or hemp products, which come from the same plant as marijuana, but do not cause a high when used alone.**

50. During your life, how many times have you used marijuana?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 to 39 times
- F. 40 to 99 times
- G. 100 or more times

51. How old were you when you tried marijuana for the first time?

- A. I have never tried marijuana
- B. 8 years old or younger
- C. 9 or 10 years old
- D. 11 or 12 years old
- E. 13 or 14 years old
- F. 15 or 16 years old
- G. 17 years old or older

52. During the past 30 days, how many times did you use marijuana?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 to 39 times
- F. 40 or more times

**The next question asks about synthetic marijuana use. Synthetic marijuana also is called Spice, fake weed, K2, or Black Mamba.**

53. During your life, how many times have you used synthetic marijuana?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 to 39 times
- F. 40 or more times

**The next question asks about the use of prescription pain medicine without a doctor's prescription or differently than how a doctor told you to use it. For this question, count drugs such as codeine, Vicodin, OxyContin, Hydrocodone, and Percocet.**

54. During your life, how many times have you taken prescription pain medicine without a doctor's prescription or differently than how a doctor told you to use it?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 to 39 times
- F. 40 or more times

**The next 7 questions ask about other drugs.**

55. During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 to 39 times
- F. 40 or more times

56. During your life, how many times have you sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 to 39 times
- F. 40 or more times

57. During your life, how many times have you used heroin (also called smack, junk, or China White)?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 to 39 times
- F. 40 or more times

58. During your life, how many times have you used methamphetamines (also called speed, crystal meth, crank, ice, or meth)?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 to 39 times
- F. 40 or more times

59. During your life, how many times have you used ecstasy (also called MDMA or Molly)?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 to 39 times
- F. 40 or more times

60. During your life, how many times have you used a needle to inject any Illegal drug into your body?

- A. 0 times
- B. 1 time
- C. 2 or more times

61. During the past 12 months, has anyone offered, sold, or given you an illegal drug on school property?

- A. Yes
- B. No

**The next 9 questions ask about sexual behavior.**

62. Have you ever had sexual intercourse?

- A. Yes
- B. No

63. How old were you when you had sexual intercourse for the first time?

- A. I have never had sexual intercourse
- B. 11 years old or younger
- C. 12 years old
- D. 13 years old
- E. 14 years old
- F. 15 years old
- G. 16 years old
- H. 17 years old or older

64. During your life, with how many people have you had sexual intercourse?

- A. I have never had sexual intercourse
- B. 1 person
- C. 2 people
- D. 3 people
- E. 4 people
- F. 5 people
- G. 6 or more people

65. During the past 3 months, with how many people did you have sexual intercourse?

- A. I have never had sexual intercourse
- B. I have had sexual intercourse, but not during the past 3 months
- C. 1 person
- D. 2 people
- E. 3 people
- F. 4 people
- G. 5 people
- H. 6 or more people

66. Did you drink alcohol or use drugs before you had sexual intercourse the last time?

- A. I have never had sexual intercourse
- B. Yes
- C. No

67. The last time you had sexual intercourse, did you or your partner use a condom?

- A. I have never had sexual intercourse
- B. Yes
- C. No

68. The last time you had sexual intercourse with an opposite-sex partner, what one method did you or your partner use to prevent pregnancy? (Select only one response.)

- A. I have never had sexual intercourse with an opposite-sex partner
- B. No method was used to prevent pregnancy
- C. Birth control pills (Do not count emergency contraception such as Plan B or the "morning after" pill.)
- D. Condoms
- E. An IUD (such as Mirena or ParaGard) or implant (such as Implanon or Nexplanon)
- F. A shot (such as Depo-Provera), patch (such as Ortho Evra), or birth control ring (such as NuvaRing)
- G. Withdrawal or some other method
- H. Not sure

69. During your life, with whom have you had sexual contact?

- A. I have never had sexual contact
- B. Females
- C. Males
- D. Females and males

70. Which of the following best describes you?

- A. Heterosexual (straight)
- B. Gay or lesbian
- C. Bisexual
- D. I describe my sexual identity some other way
- E. I am not sure about my sexual identity (questioning)
- F. I do not know what this question is asking

**The next 2 questions ask about body weight.**

71. How do **you** describe your weight?

- A. Very underweight
- B. Slightly underweight
- C. About the right weight
- D. Slightly overweight
- E. Very overweight

72. Which of the following are you trying to do about your weight?

- A. **Lose** weight
- B. **Gain** weight
- C. **Stay** the same weight
- D. I am **not trying to do anything** about my weight

**The next 9 questions ask about food you ate or drank during the past 7 days. Think about all the meals and snacks you had from the time you got up until you went to bed. Be sure to include food you ate at home, at school, at restaurants, or anywhere else.**

73. During the past 7 days, how many times did you drink **100% fruit juices** such as orange juice, apple juice, or grape juice? (Do **not** count punch, Kool-Aid, sports drinks, or other fruit-flavored drinks.)

- A. I did not drink 100% fruit juice during the past 7 days
- B. 1 to 3 times during the past 7 days
- C. 4 to 6 times during the past 7 days
- D. 1 time per day
- E. 2 times per day
- F. 3 times per day
- G. 4 or more times per day

74. During the past 7 days, how many times did you eat **fruit**? (Do **not** count fruit juice.)

- A. I did not eat fruit during the past 7 days
- B. 1 to 3 times during the past 7 days
- C. 4 to 6 times during the past 7 days
- D. 1 time per day
- E. 2 times per day
- F. 3 times per day
- G. 4 or more times per day

75. During the past 7 days, how many times did you eat **green salad**?

- A. I did not eat green salad during the past 7 days
- B. 1 to 3 times during the past 7 days
- C. 4 to 6 times during the past 7 days
- D. 1 time per day
- E. 2 times per day
- F. 3 times per day
- G. 4 or more times per day

76. During the past 7 days, how many times did you eat **potatoes**? (Do not count french fries, fried potatoes, or potato chips.)

- A. I did not eat potatoes during the past 7 days
- B. 1 to 3 times during the past 7 days
- C. 4 to 6 times during the past 7 days
- D. 1 time per day
- E. 2 times per day
- F. 3 times per day
- G. 4 or more times per day

77. During the past 7 days, how many times did you eat **carrots**?

- A. I did not eat carrots during the past 7 days
- B. 1 to 3 times during the past 7 days
- C. 4 to 6 times during the past 7 days
- D. 1 time per day
- E. 2 times per day
- F. 3 times per day
- G. 4 or more times per day

78. During the past 7 days, how many times did you eat **other vegetables**? (Do **not** count green salad, potatoes, or carrots.)

- A. I did not eat other vegetables during the past 7 days
- B. 1 to 3 times during the past 7 days
- C. 4 to 6 times during the past 7 days
- D. 1 time per day
- E. 2 times per day
- F. 3 times per day
- G. 4 or more times per day

79. During the past 7 days, how many times did you drink a **can, bottle, or glass of soda or pop**, such as Coke, Pepsi, or Sprite? (Do **not** count diet soda or diet pop.)

- A. I did not drink soda or pop during the past 7 days
- B. 1 to 3 times during the past 7 days
- C. 4 to 6 times during the past 7 days
- D. 1 time per day
- E. 2 times per day
- F. 3 times per day
- G. 4 or more times per day

80. During the past 7 days, how many **glasses of milk** did you drink? (Count the milk you drank in a glass or cup, from a carton, or with cereal. Count the half pint of milk served at school as equal to one glass.)

- A. I did not drink milk during the past 7 days
- B. 1 to 3 glasses during the past 7 days
- C. 4 to 6 glasses during the past 7 days
- D. 1 glass per day
- E. 2 glasses per day
- F. 3 glasses per day
- G. 4 or more glasses per day

81. During the past 7 days, on how many days did you eat **breakfast**?

- A. 0 days
- B. 1 day
- C. 2 days
- D. 3 days
- E. 4 days
- F. 5 days
- G. 6 days
- H. 7 days

**The next 4 questions ask about physical activity.**

82. During the past 7 days, on how many days were you physically active for a total of **at least 60 minutes per day**? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.)

- A. 0 days
- B. 1 day
- C. 2 days
- D. 3 days
- E. 4 days
- F. 5 days
- G. 6 days
- H. 7 days

83. On an average school day, how many hours do you spend in front of a TV, computer, smart phone, or other electronic device watching shows or videos, playing games, accessing the Internet, or using social media (also called "screen time")? (Do **not** count time spent doing schoolwork.)

- A. Less than 1 hour per day
- B. 1 hour per day
- C. 2 hours per day
- D. 3 hours per day
- E. 4 hours per day
- F. 5 or more hours per day

84. In an average week when you are in school, on how many days do you go to physical education (PE) classes?

- A. 0 days
- B. 1 day
- C. 2 days
- D. 3 days
- E. 4 days
- F. 5 days

85. During the past 12 months, on how many sports teams did you play? (Count any teams run by your school or community groups.)

- A. 0 teams
- B. 1 team
- C. 2 teams
- D. 3 or more teams

**The next question asks about concussions. A concussion is when a blow or jolt to the head causes problems such as headaches, dizziness, being dazed or confused, difficulty remembering or concentrating, vomiting, blurred vision, or being knocked out.**

86. During the past 12 months, how many times did you have a concussion **from playing a sport or being physically active?**

- A. 0 times
- B. 1 time
- C. 2 times
- D. 3 times
- E. 4 or more times

**The next 11 questions ask about other health-related topics.**

87. Have you ever been tested for HIV, the virus that causes AIDS? (Do **not** count tests done if you donated blood.)

- A. Yes
- B. No
- C. Not sure

88. During the past 12 months, have you been tested for a sexually transmitted disease (STD) other than HIV, such as chlamydia or gonorrhea?

- A. Yes
- B. No
- C. Not sure

89. When was the last time you saw a dentist for a check-up, exam, teeth cleaning, or other dental work?

- A. During the past 12 months
- B. Between 12 and 24 months ago
- C. More than 24 months ago
- D. Never
- E. Not sure

90. During the past 30 days, how often was your mental health not good? (Poor mental health includes stress, anxiety, and depression.)

- A. Never
- B. Rarely
- C. Sometimes
- D. Most of the time
- E. Always

91. On an average school night, how many hours of sleep do you get?

- A. 4 or less hours
- B. 5 hours
- C. 6 hours
- D. 7 hours
- E. 8 hours
- F. 9 hours
- G. 10 or more hours

92. During the past 30 days, where did you usually sleep?

- A. In my parent's or guardian's home
- B. In the home of a friend, family member, or other person because I had to leave my home or my parent or guardian cannot afford housing
- C. In a shelter or emergency housing
- D. In a motel or hotel
- E. In a car, park, campground, or other public place
- F. I do not have a usual place to sleep
- G. Somewhere else

93. During the past 30 days, did you ever sleep away from your parents or guardians because you were kicked out, ran away, or were abandoned?

- A. Yes
- B. No

94. During the past 30 days, how often did you go hungry because there was not enough food in your home?

- A. Never
- B. Rarely
- C. Sometimes
- D. Most of the time
- E. Always

95. How often do you feel safe and secure at school?

- A. Never
- B. Rarely
- C. Sometimes
- D. Most of the time
- E. Always

96. Is there at least one teacher or other adult in your school that you can talk to if you have a problem?

- A. Yes
- B. No
- C. Not sure

97. During your life, how often has there been an adult in your household who tried hard to make sure your basic needs were met, such as looking after your safety and making sure you had clean clothes and enough to eat?

- A. Never
- B. Rarely
- C. Sometimes
- D. Most of the time
- E. Always

**The next 2 questions ask about other experiences you may have had during your life.**

98. Have you ever lived with someone who was having a problem with alcohol or drug use?

- A. Yes
- B. No

99. Have you ever been separated from a parent or guardian because they went to jail, prison, or a detention center?

- A. Yes
- B. No

**This is the end of the survey.**  
**Thank you very much for your help.**



## REFERENCES:

1. CDC/National Center for Injury Prevention and Control (NCIPC). Web-based Injury Statistics Query and Reporting System (WISQARS). Atlanta, GA: US Department of Health and Human Services, CDC; 2020. <https://www.cdc.gov/injury/wisqars/index.html>
2. Kahane CJ. Lives Saved by Vehicle Safety Technologies and Associated Federal Motor Vehicle Safety Standards, 1960 to 2012—Passenger Cars and LTVs—With Reviews of 26 FMVSS and the Effectiveness of Their Associated Safety Technologies in Reducing Fatalities, Injuries, and Crashes. Washington, DC: National Highway Traffic Safety Administration; 2015. Report no. DOT HS 812 069. <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812069>
3. Kahane CJ. Fatality Reduction by Seat Belts in the Center Rear Seat and Comparison of Occupants' Relative Fatality Risk at Various Seating Positions. Washington, DC: National Highway Traffic Safety Administration; 2017. Report no. DOT HS 812 369. <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812369>
4. Insurance Institute for Highway Safety (IIHS). Fatality Facts 2018: Teenagers. Arlington, VA: IIHS, Highway Loss Data Institute; 2019. <https://www.iihs.org/topics/fatality/statistics/detail/teenagers>
5. Yellman MA, Bryan L, Sauber-Schatz EK, Brener N. Transportation risk behaviors among high school students—Youth Risk Behavior Survey, United States, 2019. *MMWR Suppl* 2020;69(No. Suppl 1).
6. NHTSA/National Center for Statistics and Analysis (NCSA). Young Drivers: 2017 Data. Traffic Safety Facts Research Note. Washington, DC: National Highway Traffic Safety Administration; 2019. Report no. DOT HS 812 753.
7. Insurance Institute for Highway Safety (IIHS). Fatality Facts 2018: Teenagers. Arlington, VA: IIHS, Highway Loss Data Institute; 2019. <https://www.iihs.org/topics/fatality/statistics/detail/teenagers>.
8. Voas RB, Torres P, Romano E, Lacey JH. Alcohol-related risk of driver fatalities: an update using 2007 data. *J Stud Alcohol Drugs* 2012;73:341–50. doi:10.15288/jsad.2012.73.341
9. Yellman MA, Bryan L, Sauber-Schatz EK, Brener N. Transportation risk behaviors among high school students—Youth Risk Behavior Survey, United States, 2019. *MMWR Suppl* 2020;69(No. Suppl 1).



10. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data. Available at <https://yrbs-explorer.services.cdc.gov/>.
11. Leadbeater BJ, Foran K, Grove-White A. How much can you drink before driving? The influence of riding with impaired adults and peers on the driving behaviors of urban and rural youth. *Addiction* 2008;103:629–37. doi:10.1111/j.1360-0443.2008.02139.x
12. Li K, Simons-Morton BG, Vaca FE, Hingson R. Association between riding with an impaired driver and driving while impaired. *Pediatrics* 2014;133:620–26. doi:10.1542/peds.2013-2786
13. CDC/National Center for Injury Prevention and Control (NCIPC). Web-based Injury Statistics Query and Reporting System (WISQARS). Atlanta, GA: US Department of Health and Human Services, CDC; 2020. <https://www.cdc.gov/injury/wisqars/index.html>.
14. NHTSA/National Center for Statistics and Analysis (NCSA). Distracted Driving 2018. Traffic Safety Facts Research Note. Washington, DC: National Highway Traffic Safety Administration; 2020. Report no. DOT HS 812 926. <https://crashstats.nhtsa.dot.gov/Api/Public/Publication/812926>.
15. Klauer SG, Guo F, Simons-Morton BG, Ouimet MC, Lee S, Dingus TA. Distracted driving and risk of road crashes among novice and experienced drivers. *N Engl J Med* 2014;370(1):54–9. doi:10.1056/nejmsa1204142
16. Simons-Morton BG, Klauer SG, Ouimet MC, et al. Naturalistic Teenage Driving Study: findings and lessons learned. *J Safety Res.* 2015;54:41–44. doi:10.1016/j.jsr.2015.06.010 5.
17. Caird JK, Johnston KA, Willness CR, Asbridge M, Steel P. A meta-analysis of the effects of texting on driving. *Accid Anal Prev* 2014;71:311–18. doi:10.1016/j.aap.2014.06.005
18. Alderman EM, Johnston BD; Committee on Adolescence; Council on Injury, Violence, and Poison Prevention. The teen driver. *Pediatrics*. 2018;142(4):e20182163. doi:10.1542/peds.2018-2163
19. Llerena LE, Aronow KV, Macleod J, et al. An evidence-based review: distracted driver. *J Trauma Acute Care Surg* 2015;78:147–52. doi:10.1097/TA.0000000000000487
20. Lee SE, Klauer SG, Olsen ECB, et al. Detection of road hazards by novice teen and experienced adult drivers. *Transportation Research Record* 2008;2078:26–32.
21. Yellman MA, Bryan L, Sauber-Schatz EK, Brener N. Transportation risk behaviors among high school students—Youth Risk Behavior Survey, United States, 2019. *MMWR Suppl* 2020;69(No. Suppl 1).

22. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data.
23. Web-based Injury Statistics Query and Reporting System (WISQARS) [database online]. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2020.
24. School-Associated Violent Death Surveillance System (SAVD-SS). Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2018.
25. Jones SE, Fisher CJ, Greene BZ, Hertz MF, Pritzl J. Healthy and safe school environment, part I: Results from the School Health Policies and Programs Study 2006. *Journal of School Health* 2007;77(8):522–543.
26. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data.
27. Sosin DM, Koepsell TD, Rivara FP, Mercy JA. Fighting as a marker for multiple problem behaviors in adolescents. *Journal of Adolescent Health* 1995;16:209–215.
28. Borowsky IW, Ireland M. Predictors of future fight-related injury among adolescents. *Pediatrics* 2004;113:530–536.
29. Pickett W, Craig W, Harel Y, et al. Cross-national study of fighting and weapon carrying as determinants of adolescent injury. *Pediatrics* 2005;116:855–863.
30. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data.
31. ACEs Connection. Trauma Informed Schools. [Trauma Informed Schools \(pacesconnection.com\)](https://pacesconnection.com)
32. Lee E, Larkin H, Saki N. Exposure to community violence as a new adverse childhood experience category: Promising results and future considerations. *Families in Society* 2017;98(1):69–78.
33. World Health Organization (WHO). Adverse Childhood Experiences International Questionnaire. In *Adverse Childhood Experiences International Questionnaire (ACE-IQ)*: Geneva: WHO, 2018.
34. Basile KC, Clayton HB, Leemis RW, Rostad W. Sexual violence victimization of youth and health risk behaviors. *American Journal of Preventive Medicine* 2020;58(4):570-579. <https://doi.org/10.1016/j.amepre.2019.11.020>

35. Ackard DM, Eisenberg ME, Neumark-Sztainer D. Long-term impact of adolescent dating violence on the behavioral and psychological health of male and female youth. *Journal of Pediatrics* 2007;151(5):476–481.
36. Vagi K, Olson E, Basile KC, Vivolo-Kantor A. Teen dating violence (physical and sexual) among US high school students: findings from the 2013 National Youth Risk Behavior Survey. *JAMA Pediatrics* 2015;169(5):474-482.
37. Young A, Grey M, Boyd CJ, McCabe SE. Adolescent sexual assault and the medical and nonmedical use of prescription medication. *J Addict Nurs*. 2011;11(1–2):25–31.
38. Wolitzky-Taylor KB, Ruggiero JK, Danielson CK, et al. Prevalence and correlates of dating violence in a national sample of adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry* 2008;47(7):755–762.
39. Lormand DK, Markham CM, Peskin MF, et al. Dating violence among urban, minority, middle school youth and associated sexual risk behaviors and substance use. *Journal of School Health* 2013;83(6):415–421.
40. SG, Zhang, X., Basile, K.C., et al. National Intimate Partner and Sexual Violence Survey: 2015 Data Brief. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention; 2018.
41. Smith SG, Chen J, Basile KC, et al. The National Intimate Partner and Sexual Violence Survey (NISVS): 2010-2012 State Report. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention; 2017.
42. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Violence Prevention. Rape prevention and education: Transforming communities to prevent sexual violence.
43. Kilpatrick DG, Resnick HS, Ruggiero KJ, Conoscenti LM, McCauley J. Drug-facilitated, incapacitated, and forcible rape: a national study. Charleston, SC: Medical University of South Carolina, National Crime Victims Research & Treatment Center; 2007
44. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data.
45. Basile KC, Clayton HB, DeGue S, et al. Interpersonal violence victimization among high school students—Youth Risk Behavior Survey, United States, 2019. *MMWR Suppl* 2020;69 (No. Suppl 1).

46. Kessel Schneider S, O'Donnell L, Stueve A, Coulter RWS. Cyberbullying, school bullying, and psychological distress: A regional census of high school students. *American Journal of Public Health* 2012;102:171–177.
47. Hawker DS, Boulton MJ. Twenty years' research on peer victimization and psychosocial maladjustment: A meta-analytic review of cross-sectional studies. *Journal of Child Psychology and Psychiatry* 2000;41(4):441–455.
48. van Geel M, Vedder P, Tanilon J. Relationship between peer victimization, cyberbullying, and suicide in children and adolescents. *Journal of American Medical Association Pediatrics* 2014;168(5):435–442.
49. Klomek AB, Sourander A, Gould M. The association of suicide and bullying in childhood to young adulthood: A review of cross-sectional and longitudinal research findings. *The Canadian Journal of Psychiatry* 2010;55(5):282–288.
50. Rigby K. Consequences of bullying in school. *The Canadian Journal of Psychiatry* 2003;48(9):583–590.
51. Glew GM, Fan MY, Katon W, Rivara FR, Kernic MA. Bullying, psychosocial adjustment, and academic performance in elementary school. *Archives of Pediatrics & Adolescent Medicine* 2005;159:1026–1031.
52. McDougall P, Vaillancourt T. Long-term adult outcomes of peer victimization in childhood and adolescence: Pathways to adjustment and maladjustment. *American Psychologist* 2015;70(4):300–310.
53. Ybarra ML, Diener-West M, Leaf PJ. Examining the overlap in internet harassment and school bullying: Implications for school intervention. *Journal of Adolescent Health*. 2007;41:42–50.
54. Kiriakidis SP, Kavoura A. Cyberbullying. A review of the literature on harassment through the internet and other electronic means. *Family & Community Health* 2010;33(2):82–93.
55. Patchin JW, Hinduja S. Cyberbullying and self-esteem. *Journal of School Health* 2010;80:614–621.
56. Basile KC, Clayton HB, DeGue S, et al. Interpersonal violence victimization among high school students—Youth Risk Behavior Survey, United States, 2019. *MMWR Suppl* 2020;69(No. Suppl 1).

57. Web-based Injury Statistics Query and Reporting System (WISQARS) [database online]. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2018. Accessed June 4, 2020.
58. Borowsky IW, Ireland M, Resnick MD. Adolescent suicide attempts: Risks and protectors. *Pediatrics* 2001; 107:485–493.
59. Bridge JA, Goldstein TR, Brent DA. Adolescent suicide and suicidal behavior. *Journal of Child Psychology and Psychiatry* 2006;47(3/4):372–394.
60. Ivey-Stephenson AZ, Demissie Z, Crosby AE et al. Suicidal ideation and behaviors among high school students—Youth Risk Behavior Survey, United States, 2019. *MMWR Suppl* 2020;69 (No. Suppl 1).
61. U.S. Department of Health and Human Services. The Health Consequences of Smoking – 50 Years of Progress: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services; Centers for Disease Control and Prevention; National Center for Chronic Disease Prevention and Health Promotion; Office on Smoking and Health; 2014.
62. Centers for Disease Control and Prevention. Annual smoking-attributable mortality, years of potential life lost, and productivity losses—United States, 2000–2004. *Morbidity and Mortality Weekly Report* 2008;57(45):1226–1228.
63. U.S. Department of Health and Human Services. Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2012.
64. Substance Abuse and Mental Health Services Administration. Results from the 2010 National Survey on Drug Use and Health: Summary of National Findings. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2011. NSDUH Series H-41, HHS Publication No. (SMA) 11-4658.
65. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data.
66. Creamer MR, Everett Jones S, Gentzke AS, Jamal A, King BA. Tobacco product use among high school students —Youth Risk Behavior Survey, United States, 2019. *MMWR Suppl* 2020;69 (No. Suppl 1).



67. U.S. Department of Health and Human Services. E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2016.
68. Cobb NK, Byron MJ, Abrams DB, Shields PG. Novel nicotine delivery systems and public health: The rise of the "e-cigarette." *American Journal of Public Health* 2010;100:2340–2342.
69. Gentzke AS, Creamer M, Cullen KA, et al. Vital Signs: Tobacco product use among middle and high school students — United States, 2011–2018. *MMWR Morb Mortal Wkly Rep* 2019;68:157–164.
70. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data.
71. Creamer MR, Everett Jones S, Gentzke AS, Jamal A, King BA. Tobacco product use among high school students — Youth Risk Behavior Survey, United States, 2019. *MMWR Suppl* 2020;69 (No. Suppl 1).
72. Food and Drug Administration. Deeming Tobacco Products to Be Subject to the Federal Food, Drug, and Cosmetic Act, as Amended by the Family Smoking Prevention and Tobacco Control Act; Regulations on the Sale and Distribution of Tobacco Products and Required Warning Statements for Tobacco Products; Final Rule. *Federal Register* 2016;81(90): 28973-29106.
73. Food and Drug Administration. Newly Signed Legislation Raises Federal Minimum Age of Sale of Tobacco Products to 21.
74. World Health Organization. Smokeless Tobacco and Some Tobacco-Specific Nitrosamines. Lyon, France: World Health Organization; 2007. International Agency for Research on Cancer Monographs on the Evaluation of Carcinogenic Risks to Humans, Vol. 89.
75. Wells Fargo Securities. Equity Research/Tobacco. Nielsen: Tobacco ‘All Channel’ Data 4/21. May 2018.
76. Johnson GK, Slach NA. Impact of tobacco use on periodontal status. *Journal of Dental Education* 2001;65:313–321.
77. U.S. Department of Health and Human Services. Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2012.

78. Henley SJ, Thun MJ, Connell C, Calle EE. Two large prospective studies of mortality among men who use snuff or chewing tobacco (United States). *Cancer Causes and Control* 2005;16:347–358.
79. Creamer MR, Everett Jones S, Gentzke AS, Jamal A, King BA. Tobacco product use among high school students —Youth Risk Behavior Survey, United States, 2019. *MMWR Suppl* 2020;69 (No. Suppl 1).
80. U.S. Department of Health and Human Services. Smoking and Tobacco Control Monograph No. 9: Cigars: Health Effects and Trends. Bethesda, MD: U.S. Department of Health and Human Services, National Cancer Institute; 1998. No. 98-4302:217.
81. Shaper AG, Wannamethee SG, Walker M. Pipe and cigar smoking and major cardiovascular events, cancer incidence and all-cause mortality in middle-age British men. *International Journal of Epidemiology* 2003;32:802–808.
82. Rodriguez J, Jiang R, Johnson WC, MacKenzie BA, Smith LJ, Barr RG. The association of pipe and cigar use with cotinine levels, lung function, and airflow obstruction. A cross sectional study. *Annals of Internal Medicine* 2010;152:201–10.
83. U.S. Department of Health and Human Services. Oral Health in America: A Report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services, National Institute for Dental and Craniofacial Research, National Institutes of Health; 2000.
84. U.S. Department of Health and Human Services. The Health Consequences of Smoking – 50 Years of Progress: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services; Centers for Disease Control and Prevention; National Center for Chronic Disease Prevention and Health Promotion; Office on Smoking and Health; 2014.
85. U.S. Department of Health and Human Services. The Health Consequences of Smoking: Nicotine Addiction: A Report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services, Centers for Disease Control; 1988.
86. England LJ, Bunnell RE, Pechacek TF, et al. Nicotine and the developing human: a neglected element in the electronic cigarette debate. *American Journal of Preventive Medicine* 2015;49 (2):286–93.
87. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data.

88. Centers for Disease Control and Prevention. Alcohol-Related Disease Impact (ARDI) application, 2013.
89. Sacks JJ, Gonzales KR, Bouchery EE, Tomedi LE, Brewer RD. 2010 National and state costs of excessive alcohol consumption. *American Journal of Preventive Medicine* 2015; 49 (5):e73–e79.
90. U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. 2017. Report to Congress on the Prevention and Reduction of Underage Drinking.
91. Miller JW, Naimi TS, Brewer RD, Jones SE. Binge drinking and associated health risk behaviors among high school students. *Pediatrics* 2007;119(1):76–85.
92. Centers for Disease Control and Prevention. Underage Drinking Fact Sheet.
93. Swahn MH, Bossarte RM, Sullivent EE. Age of alcohol use initiation, suicidal behavior, and peer and dating violence victimization and perpetration among high-risk, seventh-grade adolescents. *Pediatrics* 2008;121(2):297–305.
94. Bossarte RM, Swahn MH. The associations between early alcohol use and suicide attempts among adolescents with a history of major depression. *Addictive Behaviors* 2011;36(5):532–535.
95. Esser MB, Clayton H, Demissie Z, Kanny D, Brewer RD. Current and binge drinking among high school students – United States, 1991–2015. *MMWR* 2017;66(18):474-478.
96. National Institute of Alcohol Abuse and Alcoholism. NIAAA council approves definition of binge drinking. *NIAAA Newsletter* 2004; No. 3, p. 3.
97. DeJong W, Blanchette J. Case closed: research evidence on the positive public health impact of the age 21 minimum legal drinking age in the United States. *Journal of Studies on Alcohol and Drugs* 2014;75(Suppl 17):108–115.
98. Centers for Disease Control and Prevention. Age 21 Minimum Legal Drinking Age Fact Sheet.
99. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data.



100. Jones CM, Clayton HB, Deputy N, et al. Prescription opioid misuse and use of alcohol and other substances among high school students—Youth Risk Behavior Survey, United States, 2019. *MMWR Suppl* 2020;69(No. Suppl 1).
101. Substance Abuse and Mental Health Services Administration. Results from the 2010 National Survey on Drug Use and Health: Summary of National Findings. NSDUH Series H-41, HHS Publication No. (SMA) 11-4658. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2011. Available at: <https://www.samhsa.gov/data/sites/default/files/NSDUHNationalFindingsResults2010-web/2k10ResultsRev/NSDUHresultsRev2010.pdf>.
102. Substance Abuse and Mental Health Services Administration. Youth violence and illicit drug use. *The NSDUH Report* 2006;5:1–3.
103. Substance Abuse and Mental Health Services Administration. Marijuana use and delinquent behaviors among youths. *The NSDUH Report* January 9, 2004.
104. Young AM, Glover N, Havens JR. Nonmedical use of prescription medications among adolescents in the United States: A systematic review. *Journal of Adolescent Health* 2012;51(1):6–17.
105. Substance Abuse and Mental Health Services Administration. Substance use and the risk of suicide among youths. *The NHSDA Report* July 12, 2002106. Trecki J, Gerona RR, Schwartz MD. Synthetic cannabinoid-related illnesses and deaths. *N Engl J Med* 2015;373(2):103-107.
106. Trecki J, Gerona RR, Schwartz MD. Synthetic cannabinoid-related illnesses and deaths. *N Engl J Med* 2015;373(2):103-107.
107. Clayton HB, Lowry R, Ashley C, Wolkin A, Grant AM. Health risk behaviors with synthetic cannabinoids versus marijuana. *Pediatrics* 2017; 139(4):e20162675
108. Everett Jones S, Fisher CJ, Greene BZ, Hertz MF, Pritzl J. Healthy and safe school environment, part I: Results from the School Health Policies and Programs Study 2006. *Journal of School Health* 2007;77(8):522–543.
109. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data.
110. Santelli JS, Brener ND, Lowry R, et al. Multiple sexual partners among U.S. adolescents and young adults. *Family Planning Perspectives* 1998;30:271–275.

111. Martinez G, Copen CE, Abma JC. Teenagers in the United States: Sexual activity, contraceptive use, and childbearing, 2006–2010 National Survey of Family Growth. National Center for Health Statistics. Vital and Health Statistics Series 2011; 23(31). Available at: [http://www.cdc.gov/nchs/data/series/sr\\_23/sr23\\_031.pdf](http://www.cdc.gov/nchs/data/series/sr_23/sr23_031.pdf).
112. Manning WD, Longmore MA, Giordano PC. The relationship context of contraceptive use at first intercourse. *Family Planning Perspectives* 2000;32(3):104–110.
113. Kaestle CE, Halpern CT, Miller WC, Ford CA. Young age at first sexual intercourse and sexually transmitted infections in adolescents and young adults. *American Journal of Epidemiology* 2005;161(8):774–780.
114. Manlove J, Terry E, Gitelson L, Papillo AR, Russell S. Explaining demographic trends in teenage fertility, 1980–1995. *Family Planning Perspectives* 2000;32(4):166–175.
115. Thornberry TP, Smith CA, Howard GJ. Risk factors for teenage fatherhood. *Journal of Marriage & Family* 1997;59:505–522.
116. Satterwhite CL, Torrone E, Meites E, Dunne EF, Mahajan R, Ocfemia MC, Su J, Xu F, Weinstock H. Sexually transmitted infections among US women and men: Prevalence and incidence estimates, 2008. *Sexually Transmitted Diseases* 2013;40(3):187–193.
117. Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2018. Atlanta: U.S. Department of Health and Human Services; 2019. DOI: 10.15620/cdc.79370.
118. Centers for Disease Control and Prevention. HIV Surveillance Report, 2018 (Updated); vol. 31. <https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2018-updated-vol-31.pdf>. Accessed June 19, 2020.
119. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data. Available at <https://yrbs-explorer.services.cdc.gov/>.
120. Szucs LE, Lowry R, Fasula AM, et al. Condom and contraceptive use behaviors among sexually active high school students—Youth Risk Behavior Survey, United States, 2019. *MMWR Suppl* 2020;69(No. Suppl 1).

121. Mei Z, Grummer-Strawn LM, Pietrobelli A, Goulding A, Goran MI, Dietz WH. Validity of body mass index compared with other body-composition screening indexes for assessment of body fatness in children and adolescents. *American Journal of Clinical Nutrition* 2002;75(6):978–985.
122. Jayawardene W, Lohrmann D, YoussefAgha A. Discrepant body mass index: behaviors associated with height and weight misreporting among US adolescents from the National Youth Physical Activity and Nutrition Study. *Childhood Obesity* 2014;10(3).
123. Krebs NF, Himes JH, Jacobson D, Nicklas TA, Guilday P, Styne D. Assessment of child and adolescent overweight and obesity. *Pediatrics* 2007;120:S193–S228.
124. Institute of Medicine. *Evaluating Obesity Prevention Efforts: A Plan for Measuring Progress*. Washington, DC: The National Academies Press; 2013.
125. Brener ND, McManus T, Galuska DA, Lowry R, Wechsler H. Reliability and validity of self-reported height and weight among high school students. *Journal of Adolescent Health* 2003;32:281–287.
126. May AL, Kuklina EV, Yoon PW. Prevalence of cardiovascular disease risk factors among US adolescents, 1999–2008. *Pediatrics* 2012;129(6):1035–1041.
127. Lloyd LJ, Langley-Evans SC, McMullen S. Childhood obesity and risk of the adult metabolic syndrome: a systematic review. *International Journal of Obesity* 2012;36(1):1– 11.
128. Haflon NH, Larson K, Slusser W. Associations between obesity and comorbid mental health, developmental and physical health conditions in a nationally representative sample of US children aged 10 to 17. *Academic Pediatrics* 2013; 13(1):6-13.
129. Van Geel M, Vedder P, Tanilon J. Are overweight and obese youths more often bullied by their peers? A meta-analysis on the correlation between weight status and bullying. *International Journal of Obesity* 2014;38(10):1263–1267.
130. Griffiths LI, Parsons TJ, Hill AJ. Self-esteem and quality of life in obese children and adolescents: a systematic review. *International Journal of Pediatric Obesity* 2010;5(4):282–304.
131. The NS, Suchindran C, North KE, Popkin BM, Gordon-Larsen P. Association of adolescent obesity with risk of severe obesity in adulthood. *Journal of the American Medical Association* 2010;304(18):2042-2047.
132. Singh AS, Mulder C, Twisk JWR, Van Mechelen V, Chinapaw MJM. Tracking of childhood overweight into adulthood: a systematic review of the literature. *Obesity Reviews* 2008;9(5):474–488.

133. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data.
134. Institute of Medicine. Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation. Washington, DC: The National Academies Press; 2012. Available at: <https://www.nap.edu/read/13275/chapter/1>.
135. Spear BA, Barlow SE, Ervin C, et al. Recommendations for treatment of child and adolescent overweight and obesity. *Pediatrics* 2007;120:S254.
136. Golden NH, Schneider M, Wood C, Committee on Nutrition, Committee on Adolescence, Section on Obesity. Preventing obesity and eating disorders in adolescents. *Pediatrics* Sep 2016, 138 (3) e20161649; DOI: 10.1542/peds.2016-1649.
137. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data. Available at <https://yrbs-explorer.services.cdc.gov/>.
138. Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System survey questionnaire. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2009.
139. U.S. Department of Agriculture, U.S. Department of Health and Human Services. Dietary Guidelines for Americans 2015–2020. 8th Edition. Washington, DC: U.S. Government Printing Office, 2015
140. Boeing H., Bechthold A., Bub A., Ellinger S., Haller D., Kroke A., Leschik-Bonnet E., Müller M.J., Oberritter H., Schulze M. Critical review: Vegetables and fruit in the prevention of chronic diseases. *Eur J Nut.* 2012;51:637–663.
141. Nour M, Lutze SA, Grech A, Allman-Farinelli. The relationship between vegetable intake and weight outcomes: a systematic review of cohort studies. *Nutrients* 2018;10(11):1626
142. Kim SA, Moore LV, Galuska D, Wright AP, Harris D, Grummer-Strawn LM, Merlo CL, Nihiser AJ, Rhodes DG. Vital signs: fruit and vegetable intake among children — United States, 2003–2010. *Morbidity and Mortality Weekly Report* 2014;63(31):671–676.
143. Krebs-Smith SM, Guenther PM, Subar AF, Kirkpatrick SI, Dodd KW. Americans do not meet dietary recommendations. *Journal of Nutrition* 2010;140:1832–1838.
144. Moore LV, Thompson FE, Demissie Z. Percentage of youth meeting federal fruit and vegetable intake recommendations, Youth Risk Behavior Surveillance System, United States and 33 States, 2013. *Journal of the Academy of Nutrition and Dietetics* 2017;117:545-553.

145. Merlo CL, Jones SE, Michael SL, et al. Dietary and physical activity behaviors among high school students—Youth Risk Behavior Survey, United States, 2019. *MMWR Suppl* 2020;69(No. Suppl 1).
146. Bleich SN, Vercammen KA, Koma JW, Li Z. Trends in beverage consumption among children and adults, 2003–2014. *Obesity* 2018;26(2):432-441.
146. Bleich SN, Vercammen KA, Koma JW, Li Z. Trends in beverage consumption among children and adults, 2003–2014. *Obesity* 2018;26(2):432-441.
147. Drewnowski A, Rehm CD. Consumption of added sugars among US children and adults by food purchase location and food source. *American Journal of Clinical Nutrition* 2014;100(3):901–907.
11. Leung CW, DiMatteo SG, Gosliner WA, Ritchie LD. Sugar-sweetened beverage and water intake in relation to diet quality in U.S. children. *Am J Prev Med.* 2018;54(3):394 - 402.
148. Leung CW, DiMatteo SG, Gosliner WA, Ritchie LD. Sugar-sweetened beverage and water intake in relation to diet quality in U.S. children. *Am J Prev Med.* 2018;54(3):394- 402.
149. Armfield JM, Spencer AJ, Roberts-Thomson KF, Plastow K. Water fluoridation and the association of sugar-sweetened beverage consumption and dental caries in Australian children. *Am J Public Health.* 2013;103(3):494-500.
150. Luger M, Lafontan M, Bes-Rastrollo M, Winzer E, Yumuk V, Farpour-Lambert N. Sugar-sweetened beverages and weight gain in children and adults: A systematic review from 2013 to 2015 and a comparison with previous studies. *Obesity Facts* 2017;10(6):674-693.
151. Malik VS, Hu FB. Sugar-sweetened beverages and cardiometabolic health: An update of the evidence. *Nutrients.* 2019;11(8):1840.
152. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data. Available at <https://yrbs-explorer.services.cdc.gov/>.
153. Rampersaud GC, Pereira M, Girard BL, Adams J, Metz J. Breakfast habits, nutritional status, body weight, and academic performance in children and adolescents. *Journal of the American Dietetic Association* 2005;105:743–760.
154. Hoyland A, Dye L, Lawton CL. A systematic review of the effect of breakfast on the cognitive performance of children and adolescents. *Nutrition Research Reviews* 2009;22:220–243.
155. Michael SL, Merlo CL, Basch CE, Wentzel KR, Wechsler H. Critical connections: Health and academics. *Journal of School Health* 2015;85:740–758.



156. Rasberry CN, Tiu GF, Kann L, et al. Health-related behaviors and academic achievement among high school students — United States, 2015. *Morbidity and Mortality Weekly Report* 2017;66:921–927.
157. U.S. Department of Agriculture, U.S. Department of Health and Human Services. *Dietary Guidelines for Americans 2015–2020*. 8th Edition. Washington, DC: U.S. Government Printing Office, 2015.
158. 2018 Physical Activity Guidelines Advisory Committee. *2018 Physical Activity Guidelines Advisory Committee Scientific Report*. Washington, DC: U.S. Department of Health and Human Services; 2018.
159. US Department of Health and Human Services. *Physical Activity Guidelines for Americans*, 2nd edition. Washington, DC: US Department of Health and Human Services; 2018.
160. Merlo CL, Jones SE, Michael SL, et al. Dietary and physical activity behaviors among high school students—Youth Risk Behavior Survey, United States, 2019. *MMWR Suppl* 2020;69(No. Suppl 1).
161. U.S. Department of Health and Human Services. *Physical Activity Guidelines for Americans Midcourse Report: Strategies to Increase Physical Activity among Youth*. Washington, DC: U.S. Department of Health and Human Services; 2012. Available at: <http://www.health.gov/paguidelines/midcourse/>.
162. Institute of Medicine. *Educating the Student Body: Taking Physical Activity and Physical Education to School*. Washington, DC: The National Academies Press; 2013.
163. Centers for Disease Control and Prevention. *Comprehensive School Physical Activity Programs: A Guide for Schools*. Atlanta, GA: US Department of Health and Human Services; 2013.
164. Metcalf B, Henley M, Wilkin T. Effectiveness of intervention on physical activity of children: Systematic review and meta-analysis of controlled trials with objectively measured outcomes. *British Medical Journal* 2012; e345–347.

165. Dobbins M, Husson H, DeCorby K, LaRocca RL. School-based physical activity programs for promoting physical activity and fitness in children and adolescents aged 6 to 18 (Review). *Cochrane Database of Systematic Reviews* 2013, Issue 2. Art. No.: CD007651. DOI: 10.1002/14651858.CD007651.pub2.
166. Lonsdale C, Rosenkranz RR, Peralta LR, Bennie A, Fahey P, Lubans DR. A systematic review and meta-analysis of interventions designed to increase moderate-to-vigorous physical activity in school physical education. *Preventive Medicine* 2013; 56(2):152–161.
167. Bassett DR, Fitzhugh EC, Heath GW, et al. Estimated energy expenditures for school based policies and active living. *American Journal of Preventive Medicine* 2013;44 (2):108-113.
168. McKenzie TL, Li DL, Derby CA, Webber LS, Luepker RV, Cribb P. Maintenance of effects of the CATCH physical education program: Results from the CATCH-ON Study. *Health Education & Behavior* 2003;30:447–462.
169. McKenzie TL, Sallis JF, Prochaska JJ, Conway TL, Marshall SJ, Rosengard P. Evaluation of a two-year middle-school physical education intervention: M-SPAN. *Medicine & Science in Sports & Exercise* 2004;36:1382–1388.
170. Pate R, Ward DS, Saunders RP, Felton G, Dishman RK, Dowda M. Promotion of physical activity among high school girls: A randomized controlled trial. *American Journal of Public Health* 2005;95:1582–1587.
171. Dishman RK, Motl RW, Saunders R, et al. Enjoyment mediates effects of a school-based physical-activity intervention. *Medicine & Science in Sports & Exercise* 2005;37(3):478– 487.
172. SHAPE America. *The Essential Components of Physical Education*. Reston, VA: SHAPE America – Society of Health and Physical Educators; 2015.
173. Stiglic N, Viner RM. Effects of screentime on the health and well-being of children and adolescents: a systematic review of reviews. *BMJ Open*. 2019; 9(1): e023191. doi: 10.1136/bmjopen-2018-023191.
174. Domingues-Montanari S. Clinical and psychological effects of excessive screen time on children. *J Paediatr Child Health* 2017;53:333–338.
175. Fulton JE, Wang X, Yore MM, Carlson SA, Galuska DA, Caspersen CJ. Television viewing, computer usage, and BMI among U.S. children and adolescents. *Journal of Physical Activity and Health* 2009;6(Suppl 1):S28–S35.

176. Sisson SB, Shay CM, Broyles ST, Leyva M. Television-viewing time and dietary quality among U.S. children and adults. *American Journal of Preventive Medicine* 2012; 43(2):196–200.
177. Pearson N, Biddle SJH. Sedentary behavior and dietary intake in children, adolescents, and adults: A systematic review. *American Journal of Preventive Medicine* 41(2);2011:178-188.
178. Fuller-Tyszkiewicz M, Skouteris H, Hardy LL, Halse C. The associations between TV viewing, food intake, and BMI. A prospective analysis of data from the Longitudinal Study of Australian Children. *Appetite* 2012; 59(3):945–948.
179. Demissie Z, Lowry R, Eaton DK, Park S, Kann L. Electronic media and beverage intake among United States high school students—2010. *Journal of Nutrition Education and Behavior* 2013;45(6):756–760.
180. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data.
181. Tremblay MS, LeBlanc AG, Kho ME, Saunders TJ, Larouche R, Colley RC, Goldfield G, and Gorber SC. Systematic review of sedentary behaviour and health indicators in school-aged children and youth. *Int J Behav Nutr Phys Act* 2011; 8: 98.
182. LeBourgeois MK, Hale L, Chang A, Akacem LD, Montgomery-Downs HE, Buxton OM. Digital Media and Sleep in Childhood and Adolescence, *Pediatrics* 2017; 140(2):S92- S96.
183. Institute of Medicine and National Research Council. Sports-related Concussions in Youth: Improving the Science, Changing the Culture. Washington, DC: The National Academies Press; 2014.
184. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data.
185. Centers for Disease Control and Prevention. HIV Surveillance Report, 2018 (Updated); vol. 31. <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published May 2020.
186. Satterwhite CL, Torrone E, Meites E, et al. Sexually transmitted infections among US women and men: Prevalence and incidence estimates, 2008. *Sexually Transmitted Diseases* 2013;40(3):187–193.
187. Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2018. Atlanta: U.S. Department of Health and Human Services; 2019. DOI: 10.15620/cdc.79370.



188. U.S. Preventive Services Task Force. Final Recommendation Statement: Chlamydia and Gonorrhea: Screening. December 2016.
189. Centers for Disease Control and Prevention. Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings. *Morbidity and Mortality Weekly Report* 2006;55(RR-14).
190. Meyers D, Wolff T, Gregory K, et al. USPSTF recommendations for STI screening. *American Family Physician* 2008;77,819-824.
191. American Academy of Pediatrics. Adolescents and HIV Infection: The Pediatrician's Role in Promoting Routine Testing. *Pediatrics*. 2011;128(5):1023-1029.
192. The White House Office of National AIDS Policy. National HIV/AIDS Strategy for the United States: Updated to 2020. Washington, DC: The White House Office of National AIDS Policy; 2015.
193. Centers for Disease Control and Prevention. How Schools Can Support HIV Testing Among Adolescents. Atlanta, GA: Centers for Disease Control and Prevention; 2020.
194. Centers for Disease Control and Prevention. PS18-1807 program guidance: Guidance for school-based HIV/STD prevention (component 2) recipients of PS18-1807. Atlanta, GA: U.S. Department of Health and Human Services; 2019.
195. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data.
196. Council of State and Territorial Epidemiologists (CSTE). CSTE Position Statement: Revision to the National Oral Health Surveillance System (NOHSS) Indicators. 2015.
197. U.S. Department of Health and Human Services. Oral Health in America: A Report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services, National Institute for Dental and Craniofacial Research, National Institutes of Health; 2000.
198. Centers for Disease Control and Prevention. Oral Health Surveillance Report: Trends in Dental Caries and Sealants, Tooth Retention, and Edentulism, United States, 1999–2004 to 2011–2016. Atlanta, GA: Centers for Disease Control and Prevention, US Dept of Health and Human Services; 2019.

199. Institute of Medicine, National Research Council. Improving Access to Oral Health Care for Vulnerable and Underserved Populations. Washington, DC: National Academies Press; 2011.
200. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data.
201. Chertok IRA, Chertok N, Haile ZT, et al. Association of youth characteristics and recent utilization of dental services in the United States. *Front Pediatr* 2018;6:104.
202. Owens J, Adolescent Sleep Working Group, Committee on Adolescence. Insufficient sleep in adolescents and young adults: An update on causes and consequences. *Pediatrics* 2014;134(3):e921-32.
203. Wheaton AG, Jones SE, Cooper AC, Croft JB. Short sleep duration among middle school and high school students — United States, 2015. *MMWR Morbidity and Mortality Weekly Report* 2018;67:85–90. DOI: <http://dx.doi.org/10.15585/mmwr.mm6703a1>.
204. Millman RP, Working Group on Sleepiness in Adolescents/Young Adults, AAP Committee on Adolescence. Excessive sleepiness in adolescents and young adults: Causes, consequences, and treatment strategies. *Pediatrics* 2005;115(6):1774–1786.
205. Moore M, Meltzer LJ. The sleepy adolescent: Causes and consequences of sleepiness in teens. *Paediatric Respiratory Reviews* 2008;9(2):114–120; quiz 120–1.
206. Beebe DW. Cognitive, behavioral, and functional consequences of inadequate sleep in children and adolescents. *Pediatric Clinics of North America* 2011;58(3):649–665.
207. Smaldone A, Honig JC, Byrne MW. Sleepless in America: Inadequate sleep and relationships to health and well-being of our nation's children. *Pediatrics* 2007;119 (Suppl 1):S29–37.
208. Wolfson AR, Carskadon MA. Sleep schedules and daytime functioning in adolescents. *Child Development* 1998;69(4):875–887.
209. Taheri S. The link between short sleep duration and obesity: We should recommend more sleep to prevent obesity. *Archives of Disease in Childhood* 2006;91:881–884.
210. Matthews KA, Pantesco EJ. Sleep characteristics and cardiovascular risk in children and adolescents: An enumerative review. *Sleep Medicine* 2016;18:36-49.
211. Knutson KL, Ryden AM, Mander VA, Van Cauter E. Role of sleep duration and quality in the risk and severity of type 2 diabetes mellitus. *Archives of Internal Medicine* 2006;166:1768–1764.

212. McKnight-Eily LR, Eaton DK, Lowry R, Croft JB, Presley-Cantrell L, Perry GS. Relationships between hours of sleep and health-risk behaviors in US adolescent students. *Preventive Medicine* 2011;53(4–5):271–273.
213. Lowry R, Eaton DK, Foti K, McKnight-Eily L, Perry G, Galuska DA. Association of sleep duration with obesity among US high school students. *Journal of Obesity* 2012;2012:476914.
214. Wheaton AG, Olsen EO, Miller GF, Croft JB. Sleep duration and injury-related risk behaviors among high school students—United States, 2007–2013. *Morbidity and Mortality Weekly Report* 2016;65(13):337–341.
215. Wheaton AG, Perry GS, Chapman DP, Croft JB. Self-reported sleep duration and weight control strategies among U.S. high school students. *Sleep* 2013;36(8):1139–1145.
216. Paruthi S, Brooks LJ, D’Ambrosio C, et al. Consensus statement of the American Academy of Sleep Medicine on the recommended amount of sleep for healthy children: Methodology and discussion. *Journal of Clinical Sleep Medicine* 2016;12:1549–61.
217. Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data.
218. 42 US Code §§11431-11435.
219. Institute for Children, Poverty, and Homelessness. No Longer Hidden: The Health and Well Being of Homeless High School Students. New York: Institute for Children, Poverty, and Homelessness; 2020.
220. Morton MH, Dworsky A, Matjasko JL et al., Prevalence and correlates of youth homelessness in the United States. *J Adolesc Health* 2018; 62(1):14-21.
221. Centers for Disease Control and Prevention. Adverse Childhood Experiences. 2019; <https://www.cdc.gov/violenceprevention/childabuseandneglect/acestudy/index.html>. Accessed May 10, 2019.
222. Merrick M, Ford DC, Ports KA, et al. Vital Signs: Estimated Proportion of Adult Health Problems Attributable to Adverse Childhood Experiences and Implications for Prevention 25 States, 2015–2017. *Morbidity and Mortality Weekly Report*. 2019;68(44):999-1005.
223. David-Ferdon C, Clayton HB, Dahlberg LL, et al. Vital Signs: Prevalence of Youth Experiencing Multiple Forms of Violence and Increased Health Risk Behaviors and Conditions. *Morbidity and Mortality Weekly Report*. 2021;70(5):167–173.

224. Swedo EA, Sumner SA, de Fijter S, et al. Adolescent Opioid Misuse Attributable to Adverse Childhood Experiences. *J Pediatr*. 2020;224:102-109.e103.
225. Asmundson GJ, Afifi TO. Adverse childhood experiences: Using evidence to advance research, practice, policy, and prevention. Academic Press; 2019.
226. Health Resources and Services Administration. National Survey of Children's Health Data Brief. Washington, DC: HRSA; 2020.
227. Rak, CF, Patterson LE. Promoting resilience in at risk children. *Journal of Counseling and Development*. 1996; 75(4): 368 – 373.
228. Perry BD, Szalavitz M. The boy who was raised as a dog; and other stories from a child psychiatrist's notebook: What traumatized children can teach us about life, loss and healing. New York: Basic Books. 2007.
229. Egeland B, Jacobvitz D, Sroufe LA. Breaking the cycle of abuse. *Child Development*. 1988 Aug; 59(4) 1080- 1088.
230. Gaudin JM Jr, Polansky NA, Kilpatrick AC, Shilton P. Loneliness, depression, stress, and social supports in neglectful families. *American Journal of Orthopsychiatry*. 1993 OCT; 63(4): 597 – 605.